GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: September 14, 2004, 00:47:19 ; Search time 132 Seconds
(without alignments)
1413.950 Million cell updates/sec

Title: US-09-294-539-4
Perfect score: 2952
Sequence: 1 MEPPTSHVTNAFSDSDSASV.....RSGLSSSSSSTSIGAIRPRR 582

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1335176 seqs, 320689617 residues

Total number of hits satisfying chosen parameters: 1335176

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA:*
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18: /cgn2_6/ptodata/2/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	DB	ID	Description
1	2934	99.4	582	10	US-09-848-841-10	Sequence 10, Appl
2	2907.5	98.5	615	15	US-10-374-780A-597	Sequence 597, App
3	2907.5	98.5	615	16	US-10-437-963-153749	Sequence 153749,
4	1737	58.8	576	14	US-10-328-675A-4	Sequence 4, Appli
5	1672.5	56.7	588	8	US-08-908-884-14	Sequence 14, Appl
6	1672.5	56.7	588	9	US-09-908-323-14	Sequence 14, Appl
7	1672.5	56.7	588	14	US-10-328-675A-2	Sequence 2, Appli
8	1629	55.2	604	14	US-10-328-675A-64	Sequence 64, Appl
9	1425.5	48.3	335	12	US-10-425-114-68962	Sequence 68962, A
10	1276	43.2	593	8	US-08-908-884-3	Sequence 3, Appli
11	1276	43.2	593	9	US-09-908-323-3	Sequence 3, Appli
12	1276	43.2	593	10	US-09-934-455-74	Sequence 74, Appl
13	1276	43.2	593	10	US-09-848-841-17	Sequence 17, Appl
14	1276	43.2	593	12	US-10-225-066A-954	Sequence 954, App
15	1276	43.2	593	13	US-10-079-035-3	Sequence 3, Appli
16	1276	43.2	593	15	US-10-225-068-242	Sequence 242, App
17	1276	43.2	593	15	US-10-374-780A-48	Sequence 48, Appl
18	1222.5	41.4	579	14	US-10-328-675A-6	Sequence 6, Appli
19	1213.5	41.1	600	14	US-10-328-675A-20	Sequence 20, Appl
20	1213.5	41.1	601	10	US-09-934-455-434	Sequence 434, App
21	1213.5	41.1	601	12	US-10-412-699B-814	Sequence 814, App
22	1213.5	41.1	601	14	US-10-328-675A-72	Sequence 72, Appl
23	1213.5	41.1	601	15	US-10-374-780A-2092	Sequence 2092, Ap
24	1124	38.1	532	12	US-10-424-599-164227	Sequence 164227,
25	1124	38.1	532	12	US-10-425-114-38340	Sequence 38340, A
26	1117.5	37.9	624	15	US-10-374-780A-1466	Sequence 1466, Ap
27	1117.5	37.9	624	16	US-10-437-963-122865	Sequence 122865,
28	1117.5	37.9	635	10	US-09-848-841-16	Sequence 16, Appl
29	1060.5	35.9	591	14	US-10-328-675A-66	Sequence 66, Appl
30	1045.5	35.4	592	13	US-10-047-593-2	Sequence 2, Appli
31	1045.5	35.4	592	13	US-10-047-593-4	Sequence 4, Appli
32	1045.5	35.4	609	14	US-10-318-780-11	Sequence 11, Appl
33	1045	35.4	607	14	US-10-318-780-10	Sequence 10, Appl
34	1033.5	35.0	571	12	US-10-424-599-217392	Sequence 217392,
35	1031	34.9	586	14	US-10-328-675A-8	Sequence 8, Appli
36	1031	34.9	586	15	US-10-374-780A-2062	Sequence 2062, Ap
37	1012	34.3	501	16	US-10-767-701-44737	Sequence 44737, A
38	1009	34.2	574	14	US-10-328-675A-70	Sequence 70, Appl
39	995	33.7	475	14	US-10-318-780-4	Sequence 4, Appli
40	987	33.4	455	10	US-09-848-841-12	Sequence 12, Appl
41	971.5	32.9	601	14	US-10-328-675A-18	Sequence 18, Appl
42	915	31.0	204	16	US-10-767-701-53491	Sequence 53491, A
43	846.5	28.7	409	12	US-10-425-114-39468	Sequence 39468, A
44	844.5	28.6	409	14	US-10-318-780-21	Sequence 21, Appl
45	841	28.5	465	12	US-10-425-114-56637	Sequence 56637, A

ALIGNMENTS

RESULT 1
US-09-848-841-10
; Sequence 10, Application US/09848841
; Publication No. US20030172411A1
; GENERAL INFORMATION:
; APPLICANT: E. I. du Pont de Nemours and Company
; APPLICANT: Butler, Karla
; APPLICANT: Falco, Carl
; APPLICANT: Famodu, Omolayo O.
; APPLICANT: Fang, Yiwen
; APPLICANT: Han, Feng
; APPLICANT: Heppard, Elmer
; APPLICANT: Liu, Zhan-Bin
; APPLICANT: Miao, Gou-Hau
; APPLICANT: Odell, Joan
; APPLICANT: Rafalski, Antoni
; TITLE OF INVENTION: Disease Resistance Factors
; FILE REFERENCE: BB1252 US NA1
; CURRENT APPLICATION NUMBER: US/09/848,841
; CURRENT FILING DATE: 2001-05-04
; PRIOR APPLICATION NUMBER: 60/107,242
; PRIOR FILING DATE: 1998-11-05
; PRIOR APPLICATION NUMBER: US99/25,953
; PRIOR FILING DATE: 1999-10-04
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 10
; LENGTH: 582
; TYPE: PRT
; ORGANISM: Oryza sativa
US-09-848-841-10

Query Match 99.4%; Score 2934; DB 10; Length 582;
Best Local Similarity 99.5%; Pred. No. 4.3e-261;
Matches 579; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

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Qy        361 DVTFDGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLA 420
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RESULT 2
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; Sequence 597, Application US/10374780A
; Publication No. US20040019927A1
; GENERAL INFORMATION:
; APPLICANT: Sherman, Bradley K
; APPLICANT: Riechmann, Jose Luis
; APPLICANT: Jiang, Cai-Zhong
; APPLICANT: Heard, Jacqueline E
; APPLICANT: Haake, Volker
; APPLICANT: Creelman, Robert A
; APPLICANT: Ratcliffe, Oliver
; APPLICANT: Adam, Luc J
; APPLICANT: Reuber, T. Lynne
; APPLICANT: Keddie, James
; APPLICANT: Broun, Pierre E
; APPLICANT: Pilgrim, Marsha L
; APPLICANT: Dubell III, Arnold T
; APPLICANT: Pineda, Omaira
; APPLICANT: Yu, Guo-Liang
; TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES IN PLANTS
; FILE REFERENCE: MBI-0047 CIP
; CURRENT APPLICATION NUMBER: US/10/374,780A
; CURRENT FILING DATE: 2003-02-25
; PRIOR APPLICATION NUMBER: 09/837,944
; PRIOR FILING DATE: 2001-04-18
; PRIOR APPLICATION NUMBER: 60/310,847
; PRIOR FILING DATE: 2001-08-09
; PRIOR APPLICATION NUMBER: 09/934,455
; PRIOR FILING DATE: 2001-08-22
; PRIOR APPLICATION NUMBER: 60/336,049
; PRIOR FILING DATE: 2001-11-19
; PRIOR APPLICATION NUMBER: 60/338,692
; PRIOR FILING DATE: 2001-12-11
; PRIOR APPLICATION NUMBER: 10/171,468
; PRIOR FILING DATE: 2002-06-14
; PRIOR APPLICATION NUMBER: 10/225,066
; PRIOR FILING DATE: 2002-08-09
; PRIOR APPLICATION NUMBER: 10/225,067
; PRIOR FILING DATE: 2002-08-09
; PRIOR APPLICATION NUMBER: 10/225,068
; PRIOR FILING DATE: 2002-08-09
; NUMBER OF SEQ ID NOS: 2906
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 597
; LENGTH: 615
; TYPE: PRT
; ORGANISM: Oryza sativa
; FEATURE:
; OTHER INFORMATION: Orthologous to G278
US-10-374-780A-597

Query Match 98.5%; Score 2907.5; DB 15; Length 615;
Best Local Similarity 94.1%; Pred. No. 1.3e-258;
Matches 579; Conservative 0; Mismatches 3; Indels 33; Gaps 1;

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RESULT 3
US-10-437-963-153749
; Sequence 153749, Application US/10437963
; Publication No. US20040123343A1
; GENERAL INFORMATION:
; APPLICANT: La Rosa, Thomas J.

; APPLICANT: Kovalic, David K.
; APPLICANT: Zhou, Yihua
; APPLICANT: Cao, Yongwei
; APPLICANT: Wu, Wei
; APPLICANT: Boukharov, Andrey A.
; APPLICANT: Barbazuk, Brad
; APPLICANT: Li, Ping
; TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
; TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
; FILE REFERENCE: 38-21(53221)B
; CURRENT APPLICATION NUMBER: US/10/437,963
; CURRENT FILING DATE: 2003-05-14
; NUMBER OF SEQ ID NOS: 204966
; SEQ ID NO 153749
; LENGTH: 615
; TYPE: PRT
; ORGANISM: Oryza sativa
; FEATURE:
; OTHER INFORMATION: Clone ID: PAT_MRT4530_53675C.1.pep
US-10-437-963-153749

Query Match 98.5%; Score 2907.5; DB 16; Length 615;
Best Local Similarity 94.1%; Pred. No. 1.3e-258;
Matches 579; Conservative 0; Mismatches 3; Indels 33; Gaps 1;

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Db        241 LPPDVIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTNLDDA 300

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Db        361 DVTFDGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLA 420

Qy        421 MAGESLRGRLLYLENR--------------------------------VALARIMFPME 447
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Db        541 KRFFPRCSNVLDKIMDDETDPVSLGRDTSAEKRKRFHDLQDVLQKAFHEDKEENDRSGLS 600

Qy        568 SSSSSTSIGAIRPRR 582
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Db        601 SSSSSTSIGAIRPRR 615
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RESULT 4
US-10-328-675A-4
; Sequence 4, Application US/10328675A
; Publication No. US20030159171A1
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Willits, Michael
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: 30857USNPDIV1
; CURRENT APPLICATION NUMBER: US/10/328,675A
; CURRENT FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: 09/519,232
; PRIOR FILING DATE: 2000-03-06
; PRIOR APPLICATION NUMBER: 60/219,338
; PRIOR FILING DATE: 1999-03-09
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
; LENGTH: 576
; TYPE: PRT
; ORGANISM: Lycopersicon esculentum
US-10-328-675A-4

Query Match 58.8%; Score 1737; DB 14; Length 576;
Best Local Similarity 59.9%; Pred. No. 8.4e-151;
Matches 349; Conservative 94; Mismatches 108; Indels 32; Gaps 8;

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Qy        183 TNLFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLP 242
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              |::||| |:|  ||| ||: |||:|||:|||||||||||||:|||| || | ||||:|
Db        227 HDIVKQITDSRAELGLQGPESNGFPDKHVKRIHRALDSDDVELLRMLLKEGHTTLDDAYA 286

Qy        303 LHYAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADV 362
              ||||| :||:| | ||||:||||||:||||:||||:|| |:|||||||||||||:|:
Db        287 LHYAVAYCDAKTTAELLDLSLADVNHQNPRGHTVLHVAAMRKEPKIIVSLLTKGARPSDL 346

Qy        363 TFDGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMA 422
              | ||:||:||:||||:  |:   ||||| :|||||||||||||||| |||||:|||||
Db        347 TSDGKKALQIAKRLTRLVDFTKSTEEGKSAPKDRLCIEILEQAERRDPLLGEASLSLAMA 406

Qy        423 GESLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPERQRTTVDL 482
              |: || :|||||||| ||:::|||||:|||||||||||| |  | |      : |||||||
Db        407 GDDLRMKLLYLENRVGLAKLLFPMEAKVAMDIAQVDGTSELPLASMRKKIADAQRTTVDL 466

Qy        483 NESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIM--DDETDPVSLGRDTSAE-- 538
              ||:|| |||||| |: |||:|||||||||||| ||:|||  || ::   :| ||  |
Db        467 NEAPFKMKEEHLNRLRALSRTVELGKRFFPRCSEVLNKIMDADDLSEIAYMGNDTVEERQ 526

Qy        539 -KRKRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTSIGAIRP 580
               |::|: :||::| ||| |||||  :: :||| |||| |  :|
Db        527 LKKQRYMELQEILSKAFTEDKEEPAKTNMSSSCSSTSKGVDKP 569
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RESULT 5
US-08-908-884-14
; Sequence 14, Application US/08908884
; Publication No. US20020138872A1
; GENERAL INFORMATION:
; APPLICANT: Dong et al.
; TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF

```
;    NUMBER OF SEQUENCES:  28
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Clark & Elbing LLP
;      STREET:  176 Federal Street
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  USA
;      ZIP:  02110
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/908,884
;      FILING DATE:
;      CLASSIFICATION:  800
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  60/023,851
;      FILING DATE:  August 9, 1996
;      APPLICATION NUMBER:  60/035,166
;      FILING DATE:  January 10, 1997
;      APPLICATION NUMBER:  60/046,769
;      FILING DATE:  May 16, 1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Elbing, Karen L
;      REGISTRATION NUMBER:  35,238
;      REFERENCE/DOCKET NUMBER:  00786/339004
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  617-428-0200
;      TELEFAX:  617-428-7045
;  INFORMATION FOR SEQ ID NO:  14:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  588 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-908-884-14

  Query Match             56.7%;  Score 1672.5;  DB 8;  Length 588;
  Best Local Similarity   56.8%;  Pred. No. 7.6e-145;
  Matches  336;  Conservative  102;  Mismatches  119;  Indels   35;  Gaps    8;

Qy         11 AFSDSDSASVEE-------------GDADADADVEALRRLSDNLAAAF-RSPEDFAFLAD 56
              |||||:  |                 : |:: :|:|||: | : |  |  :| : ||
Db          7 AFSDSNDISGSSSICCIGGGMTEFFSPETSPAEITSLKRLSETLESIFDASLPEFDYFAD 66

Qy         57 ARIAVPGGGGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGG 116
              |:: |    |   :: ||||:||||||| : :|        |  |  | ::||:|::
Db         67 AKLVV---SGPCKEIPVHRCILSARSPFFKNLFC--------GKKEKNSSKVELKEVM-- 113

Qy        117 GGEEVEVGYEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAAST 176
                :| || |:|:  || ||||||:|   ||  |:||| ||:|| | |||||: :||: : |
Db        114 --KEHEVSYDAVMSVLAYLYSGKVRPSPKDVCVCVDNDCSHVACRPAVAFLVEVLYTSFT 171

Qy        177 FQVAELTNLFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMIT 236
              ||::|| : ||| |||:|||   |:::::||||:| |:| :||  |::::|:||:|:||
Db        172 FQISELVDKFQRHLLDILDKTAADDVMMVLSVANICGKACERLLSSCIEIIVKSNVDIIT 231

Qy        237 LEKSLPPDVIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTN 296
              |:|:|| |::||| |:|  |||  ||: |||:|||:|||||||||||||::||| || |
Db        232 LDKALPHDIVKQITDSRAELGLQGPESNGFPDKHVKRIHRALDSDDVELLQMLLREGHTT 291

Qy        297 LDDAFALHYAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKG 356
              ||||:|||||| :||:| | |||||||||:||:| |||||||:|| |:||||:|||||||
Db        292 LDDAYALHYAVAYCDAKTTAELLDLALADINHQNSRGYTVLHVAAMRKEPKIVVSLLTKG 351

Qy        357 ARPADVTFDGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEAS 416
              |||:|:| |||||:||:||||:  |:    |||| : |||||||||||||| |||||
Db        352 ARPSDLTSDGRKALQIAKRLTRLVDFSKSPEEGKSASNDRLCIEILEQAERRDPLLGEAS 411

Qy        417 VSLAMAGESLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPERQ 476
              |||||||: || :|||||||| ||:::|||||:|||||||||| || | |         |
Db        412 VSLAMAGDDLRMKLLYLENRVGLAKLLFPMEAKVAMDIAQVDGTSEFPLASIGKKMANAQ 471

Qy        477 RTTVDLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIM--DDETDPVSLGRD 534
              ||||||||:|| :||||| |: |||:|||||||||||| ||:|||  || ::   :| |
Db        472 RTTVDLNEAPFKIKEEHLNRLRALSRTVELGKRFFPRCSEVLNKIMDADDLSEIAYMGND 531

Qy        535 TSAE---KRKRFHDLQDVLQKAFHEDKEENDR-SGLSSSSSSTSIGAIRPRR 582
              |: |   |::|: :||::| ||| ||||| |: : :||| |||| |  :| :
Db        532 TAEERQLKKQRYMELQEILTKAFTEDKEEYDKTNNISSSCSSTSKGVDKPNK 583


RESULT 6
US-09-908-323-14
; Sequence 14, Application US/09908323
; Patent No. US20020073447A1
;  GENERAL INFORMATION:
;       APPLICANT: Dong et al.
;       TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF
;       NUMBER OF SEQUENCES: 28
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: Clark & Elbing LLP
;            STREET: 176 Federal Street
;            CITY: Boston
;            STATE: MA
;            COUNTRY: USA
;            ZIP: 02110
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Diskette
;            COMPUTER: IBM Compatible
;            OPERATING SYSTEM: DOS
;            SOFTWARE: FastSEQ for Windows Version 2.0
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/09/908,323
;            FILING DATE: 17-Jul-2001
;            CLASSIFICATION: <Unknown>
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: 08/908,884
;            FILING DATE: <Unknown>
;            APPLICATION NUMBER: 60/035,166
;            FILING DATE: January 10, 1997
;            APPLICATION NUMBER: 60/046,769
;            FILING DATE: May 16, 1997
;       ATTORNEY/AGENT INFORMATION:
;            NAME: Elbing, Karen L
;            REGISTRATION NUMBER: 35,238
;            REFERENCE/DOCKET NUMBER: 00786/339004
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: 617-428-0200
;            TELEFAX: 617-428-7045
;   INFORMATION FOR SEQ ID NO: 14:
;       SEQUENCE CHARACTERISTICS:
;            LENGTH: 588 amino acids
;            TYPE: amino acid
;            STRANDEDNESS: single
;            TOPOLOGY: linear
;       MOLECULE TYPE: protein
;       SEQUENCE DESCRIPTION: SEQ ID NO: 14:
US-09-908-323-14

  Query Match             56.7%;  Score 1672.5;  DB 9;  Length 588;
  Best Local Similarity   56.8%;  Pred. No. 7.6e-145;
  Matches  336;  Conservative  102;  Mismatches  119;  Indels   35;  Gaps    8;

Qy         11 AFSDSDSASVEE-------------GDADADADVEALRRLSDNLAAAF-RSPEDFAFLAD 56
              |||||:  |                 : |:: :|:|||: | : |  |  :| : ||
Db          7 AFSDSNDISGSSSICCIGGGMTEFFSPETSPAEITSLKRLSETLESIFDASLPEFDYFAD 66

Qy         57 ARIAVPGGGGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGG 116
              |:: |    |   :: ||||:||||||| : :|        |  |  | ::||:|::
Db         67 AKLVV---SGPCKEIPVHRCILSARSPFFKNLFC--------GKKEKNSSKVELKEVM-- 113

Qy        117 GGEEVEVGYEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAAST 176
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Db        114 --KEHEVSYDAVMSVLAYLYSGKVRPSPKDVCVCVDNDCSHVACRPAVAFLVEVLYTSFT 171

Qy        177 FQVAELTNLFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMIT 236

Db        172 FQISELVDKFQRHLLDILDKTAADDVMMVLSVANICGKACERLLSSCIEIIVKSNVDIIT 231

Qy        237 LEKSLPPDVIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTN 296

Db        232 LDKALPHDIVKQITDSRAELGLQGPESNGFPDKHVKRIHRALDSDDVELLQMLLREGHTT 291

Qy        297 LDDAFALHYAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKG 356

Db        292 LDDAYALHYAVAYCDAKTTAELLDLALADINHQNSRGYTVLHVAAMRKEPKIVVSLLTKG 351

Qy        357 ARPADVTFDGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEAS 416

Db        352 ARPSDLTSDGRKALQIAKRLTRLVDFSKSPEEGKSASNDRLCIEILEQAERRDPLLGEAS 411

Qy        417 VSLAMAGESLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPERQ 476

Db        412 VSLAMAGDDLRMKLLYLENRVGLAKLLFPMEAKVAMDIAQVDGTSEFPLASIGKKMANAQ 471

Qy        477 RTTVDLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIM--DDETDPVSLGRD 534

Db        472 RTTVDLNEAPFKIKEEHLNRLRALSRTVELGKRFFPRCSEVLNKIMDADDLSEIAYMGND 531

Qy        535 TSAE---KRKRFHDLQDVLQKAFHEDKEENDR-SGLSSSSSSTSIGAIRPRR 582

Db        532 TAEERQLKKQRYMELQEILTKAFTEDKEEYDKTNNISSSCSSTSKGVDKPNK 583
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RESULT 7
US-10-328-675A-2
; Sequence 2, Application US/10328675A
; Publication No. US20030159171A1
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Willits, Michael
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: 30857USNPDIV1
; CURRENT APPLICATION NUMBER: US/10/328,675A
; CURRENT FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: 09/519,232
; PRIOR FILING DATE: 2000-03-06
; PRIOR APPLICATION NUMBER: 60/219,338
; PRIOR FILING DATE: 1999-03-09
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
; LENGTH: 588
; TYPE: PRT
; ORGANISM: Nicotiana tabacum
US-10-328-675A-2

Query Match 56.7%; Score 1672.5; DB 14; Length 588;
Best Local Similarity 56.8%; Pred. No. 7.6e-145;
Matches 336; Conservative 102; Mismatches 119; Indels 35; Gaps 8;

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Qy         11 AFSDSDSASVEE------------GDADADADVEALRRLSDNLAAAF-RSPEDFAFLAD 56

Db          7 AFSDSNDISGSSSICCIGGGMTEFFSPETSPAEITSLKRLSETLESIFDASLPEFDYFAD 66

Qy         57 ARIAVPGGGGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGG 116

Db         67 AKLVV---SGPCKEIPVHRCILSARSPFFKNLFC--------GKKEKNSSKVELKEVM-- 113

Qy        117 GGEEVEVGYEALRLVLDYLYSGRVGDLPKAACLGVDEDCAHVGCHPAVAFMAQVLFAAST 176

Db        114 --KEHEVSYDAVMSVLAYLYSGKVRPSPKDVCVCVDNDCSHVACRPAVAFLVEVLYTSFT 171

Qy        177 FQVAELTNLFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMIT 236
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Db        172 FQISELVDKFQRHLLDILDKTAADDVMMVLSVANICGKACERLLSSCIEIIVKSNVDIIT 231

Qy        237 LEKSLPPDVIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTN 296

Db        232 LDKALPHDIVKQITDSRAELGLQGPESNGFPDKHVKRIHRALDSDDVELLQMLLREGHTT 291

Qy        297 LDDAFALHYAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKG 356

Db        292 LDDAYALHYAVAYCDAKTTAELLDLALADINHQNSRGYTVLHVAAMRKEPKIVVSLLTKG 351

Qy        357 ARPADVTFDGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEAS 416

Db        352 ARPSDLTSDGRKALQIAKRLTRLVDFSKSPEEGKSASNDRLCIEILEQAERRDPLLGEAS 411

Qy        417 VSLAMAGESLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPERQ 476

Db        412 VSLAMAGDDLRMKLLYLENRVGLAKLLFPMEAKVAMDIAQVDGTSEFPLASIGKKMANAQ 471

Qy        477 RTTVDLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIM--DDETDPVSLGRD 534

Db        472 RTTVDLNEAPFKIKEEHLNRLRALSRTVELGKRFFPRCSEVLNKIMDADDLSEIAYMGND 531

Qy        535 TSAE---KRKRFHDLQDVLQKAFHEDKEENDR-SGLSSSSSSTSIGAIRPRR 582

Db        532 TAEERQLKKQRYMELQEILTKAFTEDKEEYDKTNNISSSCSSTSKGVDKPNK 583
```

RESULT 8
US-10-328-675A-64
; Sequence 64, Application US/10328675A
; Publication No. US20030159171A1
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Willits, Michael
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: 30857USNPDIV1
; CURRENT APPLICATION NUMBER: US/10/328,675A
; CURRENT FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: 09/519,232
; PRIOR FILING DATE: 2000-03-06
; PRIOR APPLICATION NUMBER: 60/219,338
; PRIOR FILING DATE: 1999-03-09
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 64
; LENGTH: 604
; TYPE: PRT
; ORGANISM: Beta vulgaris
US-10-328-675A-64

Query Match 55.2%; Score 1629; DB 14; Length 604;
Best Local Similarity 57.4%; Pred. No. 8.1e-141;
Matches 343; Conservative 81; Mismatches 130; Indels 44; Gaps 10;

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Qy         11 AFSDSDSAS----------------VEEGDADADADVEALRRLSDNLAAAFR---SPED 50

Db         15 AFSDSNDISNGSSICCVAATTTTTTTAAENSLSFTPDAAALLRLSENLDSLFQPSLSLSD 74

Qy         51 FAFLADARIAVPGGGGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSER--- 107

Db         75 SDSFADAKIVV---SGDSREVAVHRCVLSSRSSFFRSAFASKREKEK----ERDKERVVK 127

Qy        108 LELRELLGGGGEEVEVGYEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFM 167

Db        128 LELKDLAG----DFEVGFDSVVAVLGYLYSGKVRNLPRGICVCVDEDCSHEACRPAVDFV 183

Qy        168 AQVLFAASTFQVAELTNLFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMV 227

Db        184 VEVLYLSHKFEIVELVSLYQRHLLDILDKIAPDDVLVVLSVAEMCGNACDGLLARCIDKI 243

Qy        228 VRSNLDMITLEKSLPPDVIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVR 287
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Db        244 VRSDIDVTTIDKSLPQNVVKQIIDTRKELGFTEPGRVEFPDKHVKRIHRALESDDVELVR 303

Qy        288 MLLTEGQTNLDDAFALHYAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPK 347

Db        304 MLLKERHTTLDDAYALHYAVAHCDAKTTTELLELGLADVNLRNLRGHTVLHVAAMRKEPK 363

Qy        348 IIVSLLTKGARPADVTFDGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAER 407

Db        364 IIVSLLTKGAHPSDITSDDKKALQIAKRLTKAVDFYKTTEQGKDAPKDRLCIEILEQAER 423

Qy        408 RDPQLGEASVSLAMAGESLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGS 467

Db        424 REPLLGEGSVSLAKAGDDLRMKLLYLENRVALARLLFPMEAKVAMDIAQVDGTSEFTLSK 483

Qy        468 GANPPPERQRTTVDLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIMD--DE 525

Db        484 NI---ADARRNAVDLNEAPFILKEEHLQRMKALSKTVELGKRFFPRCSDVLNKIMDAEDL 540

Qy        526 TDPVSLGRDTSAE---KRKRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTSIGAIRP 580

Db        541 SQLAFLGKDTPEERQRKRKRYLELQDALTKAFTEDKEEFDRSTLSSSSSSTPMG--RP 596


RESULT 9
US-10-425-114-68962
; Sequence 68962, Application US/10425114
; Publication No. US20040034888A1
; GENERAL INFORMATION:
;  APPLICANT: Liu, Jingdong
;  APPLICANT:  Zhou, Yihua
;  APPLICANT:  Kovalic, David K.
;  APPLICANT:  Screen, Steven E
;  APPLICANT:  Tabaska, Jack E
;  APPLICANT:  Cao, Yongwei
;  TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
;  TITLE OF INVENTION:  Plants and Uses Thereof for Plant Improvement
;  FILE REFERENCE: 38-21(53313)B
;  CURRENT APPLICATION NUMBER: US/10/425,114
;  CURRENT FILING DATE:  2003-04-28
;  NUMBER OF SEQ ID NOS: 73128
; SEQ ID NO 68962
;   LENGTH: 335
;   TYPE: PRT
;   ORGANISM: Zea mays
;   FEATURE:
;   OTHER INFORMATION: Clone ID: UC-ZMFLB73300C06_FLI.pep
US-10-425-114-68962

  Query Match             48.3%;  Score 1425.5;  DB 12;  Length 335;
  Best Local Similarity   83.9%;  Pred. No. 1.9e-122;
  Matches  282;  Conservative   24;  Mismatches   25;  Indels    5;  Gaps    2;

Qy        251 DARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTNLDDAFALHYAVEHC 310

Db          1 DARVSLGLVSPEDKGFPNIHVRRIHRALDSDDVELVRMLLKEGKTNLDDAYALHYAVEHC 60

Qy        311 DSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADVTFDGRKAV 370

Db         61 DSKITTELLDLALADVNHRNPRGYTVLHIAAMRREPKIIVSLLTKGARPSDLTFDDRKAV 120

Qy        371 QISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMAGESLRGRL 430

Db        121 QISKRLTKHGDYFGPTEDGKPSPKDRLCIEVLEQAERRDPQLGEASVSLAIEGDSARGRL 180

Qy        431 LYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPERQRTTVDLNESPFIMK 490

Db        181 LYLENRVALARILFPMEARVAMDIAQVDGTLEFTLVSSVNLPAEIQR-TVDLNDTPFTMK 239

Qy        491 EEHLARMTALSKTVELGKRFFPRCSNVLDKIMDDETDPVSLGRDTSAEKRKRFHDLQDVL 550

Db        240 EEHLARMRALSKTVEVGKRFFPRCSKVLDTIMDDEAEMASLGRDTSAEKKRRFHDLQDLV 299

Qy        551 QKAFHEDKEENDRSGL----SSSSSSTSIGAIRPRR 582

Db        300 QKAFSEDKEENDRSAARSPSSSSTTTSIGAVRPRR 335


RESULT 10
US-08-908-884-3
; Sequence 3, Application US/08908884
; Publication No. US20020138872A1
;  GENERAL INFORMATION:
;    APPLICANT:  Dong et al.
;    TITLE OF INVENTION:  ACQUIRED RESISTANCE GENES AND USES THEREOF
;    NUMBER OF SEQUENCES:  28
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Clark & Elbing LLP
;      STREET:  176 Federal Street
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  USA
;      ZIP:  02110
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/908,884
;      FILING DATE:
;      CLASSIFICATION:  800
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  60/023,851
;      FILING DATE:  August 9, 1996
;      APPLICATION NUMBER:  60/035,166
;      FILING DATE:  January 10, 1997
;      APPLICATION NUMBER:  60/046,769
;      FILING DATE:  May 16, 1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Elbing, Karen L
;      REGISTRATION NUMBER:  35,238
;      REFERENCE/DOCKET NUMBER:  00786/339004
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  617-428-0200
;      TELEFAX:  617-428-7045
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  593 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-908-884-3

  Query Match             43.2%;  Score 1276;  DB 8;  Length 593;
  Best Local Similarity   47.2%;  Pred. No. 2.6e-108;
  Matches  273;  Conservative  113;  Mismatches  165;  Indels   28;  Gaps    9;

Qy          5 TSHVTNAFSDSDSASVEEGDADADADVEALRRLSDNLAAAFRSPEDFAFLADARIAVPGG 64

Db         17 TSFVATDNTDSSIVYLAAEQVLTGPDVSALQLLSNSFESVFDSPDD--FYSDAKLVL--- 71

Qy         65 GGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGGGGEEVEVG 124

Db         72 -SDGREVSFHRCVLSARSSFFKSALA--AAKKEKDSNNTAAVKLELKEI----AKDYEVG 124

Qy        125 YEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAASTFQVAELTN 184

Db        125 FDSVVTVLAYVYSSRVRPPPKGVSECADENCCHVACRPAVDFMLEVLYLAFIFKIPELIT 184

Qy        185 LFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLPPD 244

Db        185 LYQRHLLDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNVDMVSLEKSLPEE 244

Qy        245 VIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTNLDDAFALH 304
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```
              ::|:||| |  |||  |: |    |||  :|:||||||:|||::|| |  |||||| |||
Db        245 LVKEIIDRRKELGLEVPKVK----KHVSNVHKALDSDDIELVKLLLKEDHTNLDDACALH 300

Qy        305 YAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADVTF 364
              :|| :|: |  |:|| | ||||||||||||||||:|| |:||::|:||| |||  :: |
Db        301 FAVAYCNVKTATDLLKLDLADVNHRNPRGYTVLHVAAMRKEPQLILSLLEKGASASEATL 360

Qy        365 DGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMAGE 424
              :|| |: |:|: |   :   : |: | | | |||:||||| ::|:    :   | |:| :
Db        361 EGRTALMIAKQATMAVECNNIPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPSFAVAAD 420

Qy        425 SLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPER----QRTTV 480
               |:  || |||||||: :|| ||: ||:||:: || || : |     |:|    :||:
Db        421 ELKMTLLDLENRVALAQRLFPTEAQAAMEIAEMKGTCEFIVTS---LEPDRLTGTKRTSP 477

Qy        481 DLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIMD-DETDPVSLGRDTSAEK 539
               :  :|| : ||| :|: |||||||||||||||||| |||:||: ::   :: | | :|||
Db        478 GVKIAPFRILEEHQSRLKALSKTVELGKRFFPRCSAVLDQIMNCEDLTQLACGEDDTAEK 537

Qy        540 R----KRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTS 574
              |    :|: ::|: |:||| ||  |   | |: |:||||
Db        538 RLQKKQRYMEIQETLKKAFSEDNLELGNSSLTDSTSSTS 576


RESULT 11
US-09-908-323-3
; Sequence 3, Application US/09908323
; Patent No. US20020073447A1
;  GENERAL INFORMATION:
;       APPLICANT: Dong et al.
;       TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF
;       NUMBER OF SEQUENCES: 28
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: Clark & Elbing LLP
;            STREET: 176 Federal Street
;            CITY: Boston
;            STATE: MA
;            COUNTRY: USA
;            ZIP: 02110
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Diskette
;            COMPUTER: IBM Compatible
;            OPERATING SYSTEM: DOS
;            SOFTWARE: FastSEQ for Windows Version 2.0
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/09/908,323
;            FILING DATE: 17-Jul-2001
;            CLASSIFICATION: <Unknown>
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: 08/908,884
;            FILING DATE: <Unknown>
;            APPLICATION NUMBER: 60/035,166
;            FILING DATE: January 10, 1997
;            APPLICATION NUMBER: 60/046,769
;            FILING DATE: May 16, 1997
;       ATTORNEY/AGENT INFORMATION:
;            NAME: Elbing, Karen L
;            REGISTRATION NUMBER: 35,238
;            REFERENCE/DOCKET NUMBER: 00786/339004
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: 617-428-0200
;            TELEFAX: 617-428-7045
;   INFORMATION FOR SEQ ID NO: 3:
;       SEQUENCE CHARACTERISTICS:
;            LENGTH: 593 amino acids
;            TYPE: amino acid
;            STRANDEDNESS: single
;            TOPOLOGY: linear
;       MOLECULE TYPE: protein
;       SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-908-323-3

  Query Match             43.2%;  Score 1276;  DB 9;  Length 593;
  Best Local Similarity   47.2%;  Pred. No. 2.6e-108;
  Matches  273;  Conservative  113;  Mismatches  165;  Indels   28;  Gaps    9;

Qy          5 TSHVTNAFSDSDSASVEEGDADADADVEALRRLSDNLAAAFRSPEDFAFLADARIAVPGG 64
              || |    :||    :           || ||: ||::  : | ||:|  | :||:: :
Db         17 TSFVATDNTDSSIVYLAAEQVLTGPDVSALQLLSNSFESVFDSPDD--FYSDAKLVL--- 71

Qy         65 GGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGGGGEEVEVG 124
                 | ::  ||||||||| | :   |  ||          : :|||:|:      :: |||
Db         72 -SDGREVSFHRCVLSARSSFFKSALA--AAKKEKDSNNTAAVKLELKEI----AKDYEVG 124

Qy        125 YEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAASTFQVAELTN 184
              ::::  || |:|| ||    ||     | ||:| || | ||| || :||: |  |:: ||
Db        125 FDSVVTVLAYVYSSRVRPPPKGVSECADENCCHVACRPAVDFMLEVLYLAFIFKIPELIT 184

Qy        185 LFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLPPD 244
              |:|| ||||:||| ::: |:|| :||:| |:|||||:|| :::|:||:||::|||||| :
Db        185 LYQRHLLDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNVDMVSLEKSLPEE 244

Qy        245 VIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTNLDDAFALH 304
              ::|:||| |  |||  |: |    |||  :|:||||||:|||::|| |  ||||||  |||
Db        245 LVKEIIDRRKELGLEVPKVK----KHVSNVHKALDSDDIELVKLLLKEDHTNLDDACALH 300

Qy        305 YAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADVTF 364
              :|| :|: |  |:|| | ||||||||||||||||:|| |:||::|:||| |||  :: |
Db        301 FAVAYCNVKTATDLLKLDLADVNHRNPRGYTVLHVAAMRKEPQLILSLLEKGASASEATL 360

Qy        365 DGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMAGE 424
              :|| |: |:|: |   :   : |: | | | |||:||||| ::|:    :   | |:| :
Db        361 EGRTALMIAKQATMAVECNNIPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPSFAVAAD 420

Qy        425 SLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPER----QRTTV 480
               |:  || |||||||: :|| ||: ||:||:: || || : |     |:|    :||:
Db        421 ELKMTLLDLENRVALAQRLFPTEAQAAMEIAEMKGTCEFIVTS---LEPDRLTGTKRTSP 477

Qy        481 DLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIMD-DETDPVSLGRDTSAEK 539
               :  :|| : ||| :|: |||||||||||||||||| |||:||: ::   :: | | :|||
Db        478 GVKIAPFRILEEHQSRLKALSKTVELGKRFFPRCSAVLDQIMNCEDLTQLACGEDDTAEK 537

Qy        540 R----KRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTS 574
              |    :|: ::|: |:||| ||  |   | |: |:||||
Db        538 RLQKKQRYMEIQETLKKAFSEDNLELGNSSLTDSTSSTS 576


RESULT 12
US-09-934-455-74
; Sequence 74, Application US/09934455
; Publication No. US20030121070A1
; GENERAL INFORMATION:
;  APPLICANT: Adam, Luc
;  APPLICANT:  Creelman, Robert
;  APPLICANT:  Dubell, Arnold
;  APPLICANT:  Heard, Jacqueline
;  APPLICANT:  Jiang, Cai-Zhong
;  APPLICANT:  Keddie, James
;  APPLICANT:  Pilgrim, Marsha
;  APPLICANT:  Ratcliffe, Oliver
;  APPLICANT:  Reuber, Lynne
;  APPLICANT:  Riechmann, Jose Luis
;  APPLICANT:  Yu, Guo-Liang
;  APPLICANT:  Pineda, Omaira
;  TITLE OF INVENTION: Genes for Modifying Plant Traits IV
;  FILE REFERENCE: MBI-0025
;  CURRENT APPLICATION NUMBER: US/09/934,455
;  CURRENT FILING DATE:  2001-08-22
;  PRIOR APPLICATION NUMBER: 60/227439
;  PRIOR FILING DATE: 2000-08-22
;  PRIOR APPLICATION NUMBER: MBI-0022
;  PRIOR FILING DATE: 2001-11-16
;  PRIOR APPLICATION NUMBER: MBI-0023
;  PRIOR FILING DATE: 2001-04-17
;  NUMBER OF SEQ ID NOS: 516
;  SOFTWARE: PatentIn version 3.1
```

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; SEQ ID NO 74
;   LENGTH: 593
;   TYPE: PRT
;   ORGANISM: Arabidopsis thaliana
US-09-934-455-74

  Query Match             43.2%;  Score 1276;  DB 10;  Length 593;
  Best Local Similarity   47.2%;  Pred. No. 2.6e-108;
  Matches  273;  Conservative  113;  Mismatches  165;  Indels   28;  Gaps    9;

Qy          5 TSHVTNAFSDSDSASVEEGDADADADVEALRRLSDNLAAAFRSPEDFAFLADARIAVPGG 64
              || |    :||    :          || ||: ||::  : | ||:|  | :||:: :
Db         17 TSFVATDNTDSSIVYLAAEQVLTGPDVSALQLLSNSFESVFDSPDD--FYSDAKLVL--- 71

Qy         65 GGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGGGGEEVEVG 124
                | ::  ||||||||| | :   |  ||          : :|||:|:    :: |||
Db         72 -SDGREVSFHRCVLSARSSFFKSALA--AAKKEKDSNNTAAVKLELKEI----AKDYEVG 124

Qy        125 YEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAASTFQVAELTN 184
              ::::  || |:|| ||   ||    | ||:| || | ||| || :||: |  |:: ||
Db        125 FDSVVTVLAYVYSSRVRPPPKGVSECADENCCHVACRPAVDFMLEVLYLAFIFKIPELIT 184

Qy        185 LFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLPPD 244
              |:|| ||||:||| ::: |:|| :||:| |:|||||:|| :::|:||:||::|||||| :
Db        185 LYQRHLLDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNVDMVSLEKSLPEE 244

Qy        245 VIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTNLDDAFALH 304
              ::|:||| |  |||  |: |    |||  :|:|||||:|||::|| |  |||||| |||
Db        245 LVKEIIDRRKELGLEVPKVK----KHVSNVHKALDSDDIELVKLLLKEDHTNLDDACALH 300

Qy        305 YAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADVTF 364
              :|| :|: |  |:|| | |||||||||||||||:|| |:||::|:||| |||  :: |
Db        301 FAVAYCNVKTATDLLKLDLADVNHRNPRGYTVLHVAAMRKEPQLILSLLEKGASASEATL 360

Qy        365 DGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMAGE 424
              :|| |: |:|: |   :   : |: | | | |||:|||| ::|:    :   | |:| :
Db        361 EGRTALMIAKQATMAVECNNIPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPSFAVAAD 420

Qy        425 SLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPER----QRTTV 480
              |:  || |||||||: :|| ||: ||:||:: || || : |     |:|    :||:
Db        421 ELKMTLLDLENRVALAQRLFPTEAQAAMEIAEMKGTCEFIVTS---LEPDRLTGTKRTSP 477

Qy        481 DLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIMD-DETDPVSLGRDTSAEK 539
              :  :|| : ||| :|: ||||||||||||||||| |||:||: ::   :: | | :|||
Db        478 GVKIAPFRILEEHQSRLKALSKTVELGKRFFPRCSAVLDQIMNCEDLTQLACGEDDTAEK 537

Qy        540 R----KRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTS 574
              |    :|: ::|: |:||| ||  |   | |: |:|||
Db        538 RLQKKQRYMEIQETLKKAFSEDNLELGNSSLTDSTSSTS 576


RESULT 13
US-09-848-841-17
; Sequence 17, Application US/09848841
; Publication No. US20030172411A1
; GENERAL INFORMATION:
;  APPLICANT: E. I. du Pont de Nemours and Company
;  APPLICANT:  Butler, Karla
;  APPLICANT:  Falco, Carl
;  APPLICANT:  Famodu, Omolayo O.
;  APPLICANT:  Fang, Yiwen
;  APPLICANT:  Han, Feng
;  APPLICANT:  Heppard, Elmer
;  APPLICANT:  Liu, Zhan-Bin
;  APPLICANT:  Miao, Gou-Hau
;  APPLICANT:  Odell, Joan
;  APPLICANT:  Rafalski, Antoni
;  TITLE OF INVENTION: Disease Resistance Factors
;  FILE REFERENCE: BB1252 US NA1
;  CURRENT APPLICATION NUMBER: US/09/848,841
;  CURRENT FILING DATE:  2001-05-04
;  PRIOR APPLICATION NUMBER: 60/107,242
;  PRIOR FILING DATE: 1998-11-05
;  PRIOR APPLICATION NUMBER: US99/25,953
;  PRIOR FILING DATE: 1999-10-04
;  NUMBER OF SEQ ID NOS: 17
;  SOFTWARE: Microsoft Office 97
; SEQ ID NO 17
;   LENGTH: 593
;   TYPE: PRT
;   ORGANISM: Arabidopsis thaliana
US-09-848-841-17

  Query Match             43.2%;  Score 1276;  DB 10;  Length 593;
  Best Local Similarity   47.2%;  Pred. No. 2.6e-108;
  Matches  273;  Conservative  113;  Mismatches  165;  Indels   28;  Gaps    9;

Qy          5 TSHVTNAFSDSDSASVEEGDADADADVEALRRLSDNLAAAFRSPEDFAFLADARIAVPGG 64
              || |    :||    :          || ||: ||::  : | ||:|  | :||:: :
Db         17 TSFVATDNTDSSIVYLAAEQVLTGPDVSALQLLSNSFESVFDSPDD--FYSDAKLVL--- 71

Qy         65 GGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGGGGEEVEVG 124
                | ::  ||||||||| | :   |  ||          : :|||:|:    :: |||
Db         72 -SDGREVSFHRCVLSARSSFFKSALA--AAKKEKDSNNTAAVKLELKEI----AKDYEVG 124

Qy        125 YEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAASTFQVAELTN 184
              ::::  || |:|| ||   ||    | ||:| || | ||| || :||: |  |:: ||
Db        125 FDSVVTVLAYVYSSRVRPPPKGVSECADENCCHVACRPAVDFMLEVLYLAFIFKIPELIT 184

Qy        185 LFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLPPD 244
              |:|| ||||:||| ::: |:|| :||:| |:|||||:|| :::|:||:||::|||||| :
Db        185 LYQRHLLDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNVDMVSLEKSLPEE 244

Qy        245 VIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTNLDDAFALH 304
              ::|:||| |  |||  |: |    |||  :|:|||||:|||::|| |  |||||| |||
Db        245 LVKEIIDRRKELGLEVPKVK----KHVSNVHKALDSDDIELVKLLLKEDHTNLDDACALH 300

Qy        305 YAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADVTF 364
              :|| :|: |  |:|| | |||||||||||||||:|| |:||::|:||| |||  :: |
Db        301 FAVAYCNVKTATDLLKLDLADVNHRNPRGYTVLHVAAMRKEPQLILSLLEKGASASEATL 360

Qy        365 DGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMAGE 424
              :|| |: |:|: |   :   : |: | | | |||:|||| ::|:    :   | |:| :
Db        361 EGRTALMIAKQATMAVECNNIPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPSFAVAAD 420

Qy        425 SLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPER----QRTTV 480
              |:  || |||||||: :|| ||: ||:||:: || || : |     |:|    :||:
Db        421 ELKMTLLDLENRVALAQRLFPTEAQAAMEIAEMKGTCEFIVTS---LEPDRLTGTKRTSP 477

Qy        481 DLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIMD-DETDPVSLGRDTSAEK 539
              :  :|| : ||| :|: ||||||||||||||||| |||:||: ::   :: | | :|||
Db        478 GVKIAPFRILEEHQSRLKALSKTVELGKRFFPRCSAVLDQIMNCEDLTQLACGEDDTAEK 537

Qy        540 R----KRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTS 574
              |    :|: ::|: |:||| ||  |   | |: |:|||
Db        538 RLQKKQRYMEIQETLKKAFSEDNLELGNSSLTDSTSSTS 576


RESULT 14
US-10-225-066A-954
; Sequence 954, Application US/10225066A
; Publication No. US20030226173A1
; GENERAL INFORMATION:
;  APPLICANT: Mendel Biotechnology, Inc.
;  APPLICANT:  RATCLIFFE, Oliver
;  APPLICANT:  RIECHMANN, Jose Luis
;  APPLICANT:  ADAM, Luc J
;  APPLICANT:  DUBELL, Arnold T
;  APPLICANT:  HEARD, Jacqueline E
;  APPLICANT:  PILGRIM, Marsha L
;  APPLICANT:  JIANG, Cai-Zhong
;  APPLICANT:  REUBER, T. Lynne
;  APPLICANT:  CREELMAN, Robert A
;  APPLICANT:  PINEDA, Omaira
;  APPLICANT:  YU, Guo-Liang
;  APPLICANT:  BROUN, Pierre E
```

```
;  TITLE OF INVENTION: Yield-Related Polynucleotides and Polypeptides in Plants
;  FILE REFERENCE: MBI0036-2 US
;  CURRENT APPLICATION NUMBER: US/10/225,066A
;  CURRENT FILING DATE:  2002-08-09
;  PRIOR APPLICATION NUMBER: 09/837,444
;  PRIOR FILING DATE: 2001-04-18
;  PRIOR APPLICATION NUMBER: 60/310,847
;  PRIOR FILING DATE: 2001-08-09
;  PRIOR APPLICATION NUMBER: 60/336,049
;  PRIOR FILING DATE: 2001-12-05
;  PRIOR APPLICATION NUMBER: 60/338,692
;  PRIOR FILING DATE: 2001-12-11
;  PRIOR APPLICATION NUMBER: 10/171,468
;  PRIOR FILING DATE: 2002-06-14
;  NUMBER OF SEQ ID NOS: 1122
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 954
;   LENGTH: 593
;   TYPE: PRT
;   ORGANISM: Arabidopsis thaliana
US-10-225-066A-954

  Query Match             43.2%;  Score 1276;  DB 12;  Length 593;
  Best Local Similarity   47.2%;  Pred. No. 2.6e-108;
  Matches  273;  Conservative  113;  Mismatches  165;  Indels   28;  Gaps    9;

Qy          5 TSHVTNAFSDSDSASVEEGDADADADVEALRRLSDNLAAAFRSPEDFAFLADARIAVPGG 64
              || |    :||    :          || ||: ||::  : | ||:|  | :||:: :
Db         17 TSFVATDNTDSSIVYLAAEQVLTGPDVSALQLLSNSFESVFDSPDD--FYSDAKLVL--- 71

Qy         65 GGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGGGGEEVEVG 124
                | ::  ||||||||| | :   |  ||          : :|||:|:     :: |||
Db         72 -SDGREVSFHRCVLSARSSFFKSALA--AAKKEKDSNNTAAVKLELKEI----AKDYEVG 124

Qy        125 YEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAASTFQVAELTN 184
              ::::  || |:|| ||   ||    | ||:| || | ||| || :||: |  |:: ||
Db        125 FDSVVTVLAYVYSSRVRPPPKGVSECADENCCHVACRPAVDFMLEVLYLAFIFKIPELIT 184

Qy        185 LFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLPPD 244
              |:|| ||||:||| ::: |:|| :||:| |:|||||:|| :::|:|||:|||::|||||| :
Db        185 LYQRHLLDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNVDMVSLEKSLPEE 244

Qy        245 VIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTNLDDAFALH 304
              ::|:||| |  |||  |: |    |||  :|:||||||:|||::|| |  ||||||  |||
Db        245 LVKEIIDRRKELGLEVPKVK----KHVSNVHKALDSDDIELVKLLLKEDHTNLDDACALH 300

Qy        305 YAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADVTF 364
              :|| :|: |  |:|| | ||||||||||||||||:|| |:||::|:||| |||  :: |
Db        301 FAVAYCNVKTATDLLKLDLADVNHRNPRGYTVLHVAAMRKEPQLILSLLEKGASASEATL 360

Qy        365 DGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMAGE 424
              :|| |: |:|: |   :   : |: | | | |||:|||| ::|:    :    | |:| :
Db        361 EGRTALMIAKQATMAVECNNIPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPSFAVAAD 420

Qy        425 SLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPER----QRTTV 480
              |:  || ||||||||: :|| ||: ||:||:: || || : |     |:|    :|||:
Db        421 ELKMTLLDLENRVALAQRLFPTEAQAAMEIAEMKGTCEFIVTS---LEPDRLTGTKRTSP 477

Qy        481 DLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIMD-DETDPVSLGRDTSAEK 539
              :  :|| : ||| :|: |||||||||||||||||| |||:||: ::   :: | | :|||
Db        478 GVKIAPFRILEEHQSRLKALSKTVELGKRFFPRCSAVLDQIMNCEDLTQLACGEDDTAEK 537

Qy        540 R----KRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTS 574
              |    :|: ::|: |:||| ||  |    | |: |:||||
Db        538 RLQKKQRYMEIQETLKKAFSEDNLELGNSSLTDSTSSTS 576


RESULT 15
US-10-079-035-3
; Sequence 3, Application US/10079035
; Publication No. US20020152499A1
;  GENERAL INFORMATION:
;    APPLICANT:  Ryals, John
;    APPLICANT:  Delaney, Terry
;    APPLICANT:  Friedrich, Leslie
;    APPLICANT:  Weymann, Kristianna
;    APPLICANT:  Lawton, Kay
;    APPLICANT:  Ellis, Daniel
;    APPLICANT:  Uknes, Scott
;    APPLICANT:  Jesse, Taco
;    APPLICANT:  Vos, Pieter
;    TITLE OF INVENTION:  GENE ENCODING A PROTEIN INVOLVED IN THE
;    TITLE OF INVENTION:  SIGNAL TRANSDUCTION CASCADE LEADING TO SYSTEMIC ACQUIRED RESIS
;    TITLE OF INVENTION:  IN PLANTS
;    NUMBER OF SEQUENCES:  17
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  No. US20020152499Alartis Corporation
;      STREET:  520 White Plains Road, P.O. Box 2005
;      CITY:  Tarrytown
;      STATE:  New York
;      COUNTRY:  USA
;      ZIP:  10591
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/10/079,035
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  09/577,799
;      FILING DATE:
;      APPLICATION NUMBER:  08/880,179
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Meigs, J. Timothy
;      REGISTRATION NUMBER:  38,241
;      REFERENCE/DOCKET NUMBER:  CGC 1909
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (919) 541-8587
;      TELEFAX:  (919) 541-8689
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;     LENGTH: 593 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-10-079-035-3

  Query Match             43.2%;  Score 1276;  DB 13;  Length 593;
  Best Local Similarity   47.2%;  Pred. No. 2.6e-108;
  Matches  273;  Conservative  113;  Mismatches  165;  Indels   28;  Gaps    9;

Qy          5 TSHVTNAFSDSDSASVEEGDADADADVEALRRLSDNLAAAFRSPEDFAFLADARIAVPGG 64
              || |    :||    :          || ||: ||::  : | ||:|  | :||:: :
Db         17 TSFVATDNTDSSIVYLAAEQVLTGPDVSALQLLSNSFESVFDSPDD--FYSDAKLVL--- 71

Qy         65 GGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGGGGEEVEVG 124
                | ::  ||||||||| | :   |  ||          : :|||:|:     :: |||
Db         72 -SDGREVSFHRCVLSARSSFFKSALA--AAKKEKDSNNTAAVKLELKEI----AKDYEVG 124

Qy        125 YEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAASTFQVAELTN 184
              ::::  || |:|| ||   ||    | ||:| || | ||| || :||: |  |:: ||
Db        125 FDSVVTVLAYVYSSRVRPPPKGVSECADENCCHVACRPAVDFMLEVLYLAFIFKIPELIT 184

Qy        185 LFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLPPD 244
              |:|| ||||:||| ::: |:|| :||:| |:|||||:|| :::|:|||:|||::|||||| :
Db        185 LYQRHLLDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNVDMVSLEKSLPEE 244

Qy        245 VIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTNLDDAFALH 304
              ::|:||| |  |||  |: |    |||  :|:||||||:|||::|| |  ||||||  |||
Db        245 LVKEIIDRRKELGLEVPKVK----KHVSNVHKALDSDDIELVKLLLKEDHTNLDDACALH 300

Qy        305 YAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADVTF 364
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                :|| :|: |  |:|| | ||||||||||||||||:|| |:||::|:||| |||  :: |
Db        301 FAVAYCNVKTATDLLKLDLADVNHRNPRGYTVLHVAAMRKEPQLILSLLEKGASASEATL 360

Qy        365 DGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMAGE 424
                :|| |: |:|: |   :   : |: | | | |||:||||| ::|:    :   | |:| :
Db        361 EGRTALMIAKQATMAVECNNIPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPSFAVAAD 420

Qy        425 SLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPER----QRTTV 480
                 |:  || ||||||||: :|| ||: ||:||:: || || : |     |:|    :||:
Db        421 ELKMTLLDLENRVALAQRLFPTEAQAAMEIAEMKGTCEFIVTS---LEPDRLTGTKRTSP 477

Qy        481 DLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIMD-DETDPVSLGRDTSAEK 539
                 :  :|| : ||| :|: |||||||||||||||| |||:||: ::   :: | | :|||  .
Db        478 GVKIAPFRILEEHQSRLKALSKTVELGKRFFPRCSAVLDQIMNCEDLTQLACGEDDTAEK 537

Qy        540 R----KRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTS 574
                |    :|: ::|: |:||| ||  |   | |: ||:||||
Db        538 RLQKKQRYMEIQETLKKAFSEDNLELGNSSLTDSTSSTS 576
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Search completed: September 14, 2004, 01:00:47
Job time : 135 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: September 14, 2004, 00:38:24 ; Search time 34 Seconds
(without alignments)
883.715 Million cell updates/sec

Title: US-09-294-539-4
Perfect score: 2952
Sequence: 1 MEPPTSHVTNAFSDSDSASV.....RSGLSSSSSSTSIGAIRPRR 582

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 389414

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
1: /cgn2_6/ptodata/2/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
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4: /cgn2_6/ptodata/2/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*
6: /cgn2_6/ptodata/2/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1737	58.8	576	4	US-09-519-232-4	Sequence 4, Appli
2	1672.5	56.7	588	4	US-09-519-232-2	Sequence 2, Appli
3	1629	55.2	604	4	US-09-519-232-64	Sequence 64, Appl
4	1276	43.2	593	2	US-08-989-478-2	Sequence 2, Appli
5	1276	43.2	593	3	US-08-996-685-2	Sequence 2, Appli
6	1276	43.2	593	3	US-08-880-179-3	Sequence 3, Appli
7	1270	43.0	593	2	US-08-989-478-8	Sequence 8, Appli
8	1270	43.0	593	3	US-08-996-685-8	Sequence 8, Appli
9	1222.5	41.4	579	4	US-09-519-232-6	Sequence 6, Appli
10	1213.5	41.1	600	4	US-09-519-232-20	Sequence 20, Appl
11	1213.5	41.1	601	4	US-09-519-232-72	Sequence 72, Appl
12	1188.5	40.3	521	2	US-08-989-478-12	Sequence 12, Appl
13	1188.5	40.3	521	3	US-08-996-685-12	Sequence 12, Appl
14	1134	38.4	469	2	US-08-989-478-10	Sequence 10, Appl
15	1134	38.4	469	3	US-08-996-685-10	Sequence 10, Appl
16	1087	36.8	621	4	US-09-551-778-2	Sequence 2, Appli
17	1087	36.8	621	4	US-09-551-778-4	Sequence 4, Appli
18	1060.5	35.9	591	4	US-09-519-232-66	Sequence 66, Appl
19	1052.5	35.7	397	2	US-08-989-478-14	Sequence 14, Appl
20	1052.5	35.7	397	3	US-08-996-685-14	Sequence 14, Appl
21	1045.5	35.4	609	4	US-09-569-804-11	Sequence 11, Appl
22	1045	35.4	607	4	US-09-569-804-10	Sequence 10, Appl
23	1031	34.9	586	4	US-09-519-232-8	Sequence 8, Appli
24	1009	34.2	574	4	US-09-519-232-70	Sequence 70, Appl
25	995	33.7	475	4	US-09-569-804-4	Sequence 4, Appli
26	971.5	32.9	601	4	US-09-519-232-18	Sequence 18, Appl
27	844.5	28.6	409	4	US-09-569-804-21	Sequence 21, Appl
28	825	27.9	217	4	US-09-519-232-46	Sequence 46, Appl
29	823	27.9	219	4	US-09-519-232-30	Sequence 30, Appl
30	782.5	26.5	381	4	US-09-569-804-17	Sequence 17, Appl
31	751	25.4	261	2	US-08-989-478-16	Sequence 16, Appl
32	751	25.4	261	3	US-08-996-685-16	Sequence 16, Appl
33	678	23.0	369	4	US-09-519-232-74	Sequence 74, Appl
34	644	21.8	165	4	US-09-519-232-38	Sequence 38, Appl
35	614	20.8	165	4	US-09-519-232-40	Sequence 40, Appl
36	599	20.3	165	4	US-09-519-232-42	Sequence 42, Appl
37	502.5	17.0	180	4	US-09-569-804-35	Sequence 35, Appl
38	493	16.7	165	4	US-09-519-232-58	Sequence 58, Appl
39	485	16.4	165	4	US-09-519-232-32	Sequence 32, Appl
40	477	16.2	165	4	US-09-519-232-34	Sequence 34, Appl
41	470	15.9	165	4	US-09-519-232-48	Sequence 48, Appl
42	461.5	15.6	158	4	US-09-519-232-50	Sequence 50, Appl
43	450	15.2	165	4	US-09-519-232-44	Sequence 44, Appl
44	441	14.9	165	4	US-09-519-232-56	Sequence 56, Appl
45	425.5	14.4	166	4	US-09-519-232-54	Sequence 54, Appl

ALIGNMENTS

RESULT 1
US-09-519-232-4
; Sequence 4, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Willits, Michael
; APPLICANT: Mengiste, Tesfaye
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; CURRENT FILING DATE: 2000-03-06
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
; LENGTH: 576
; TYPE: PRT
; ORGANISM: Lycopersicon esculentum
US-09-519-232-4

Query Match 58.8%; Score 1737; DB 4; Length 576;
Best Local Similarity 59.9%; Pred. No. 9.5e-169;
Matches 349; Conservative 94; Mismatches 108; Indels 32; Gaps 8;

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Qy          11 AFSDSDSAS-------VEEGDADADADVEALRRLSDNLAAAF-RSPEDFAFLADARIAVP 62
               |||||:  |       : | :    ||| :|:|||: | : |  |  || | |||::  |
Db           6 AFSDSNDISGSSSICCMNESETSL-ADVNSLKRLSETLESIFDASAPDFDFFADAKLLAP 64

Qy          63 GGGGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGGGGEEVE 122
                  || :: ||||:||||||| : ||           |:| | :|||:||:    :| |
Db          65 ----GGKEIPVHRCILSARSPFFKNVFC----------GKDSSTKLELKELM----KEYE 106

Qy         123 VGYEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAASTFQVAEL 182
               | ::|:  || |||||:|    |  |:||| :| || | |||||| |||:|: |||:::|
Db         107 VSFDAVVSVLAYLYSGKVRPASKDVCVCVDNECLHVACRPAVAFMVQVLYASFTFQISQL 166

Qy         183 TNLFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLP 242
                : ||| |||:|||   |:::::|||||:| |:| :|| ||:|::|:||:|:|||:||||
Db         167 VDKFQRHLLDILDKAVADDVMMVLSVANICGKACERLLSRCIDIIVKSNVDIITLDKSLP 226

Qy         243 PDVIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTNLDDAFA 302
                |::||| |:|  |||  ||: |||:|||:|||||||||||||:|||| || | ||||:|
Db         227 HDIVKQITDSRAELGLQGPESNGFPDKHVKRIHRALDSDDVELLRMLLKEGHTTLDDAYA 286

Qy         303 LHYAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADV 362
               ||||| :||:| | |||||:||||||:||||:||||:|| |:|||||||||||||||:|:
Db         287 LHYAVAYCDAKTTAELLDLSLADVNHQNPRGHTVLHVAAMRKEPKIIVSLLTKGARPSDL 346

Qy         363 TFDGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMA 422
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Db        347 TSDGKKALQIAKRLTRLVDFTKSTEEGKSAPKDRLCIEILEQAERRDPLLGEASLSLAMA 406

Qy        423 GESLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPERQRTTVDL 482

Db        407 GDDLRMKLLYLENRVGLAKLLFPMEAKVAMDIAQVDGTSELPLASMRKKIADAQRTTVDL 466

Qy        483 NESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIM--DDETDPVSLGRDTSAE-- 538

Db        467 NEAPFKMKEEHLNRLRALSRTVELGKRFFPRCSEVLNKIMDADDLSEIAYMGNDTVEERQ 526

Qy        539 -KRKRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTSIGAIRP 580

Db        527 LKKQRYMELQEILSKAFTEDKEEFAKTNMSSSCSSTSKGVDKP 569


RESULT 2
US-09-519-232-2
; Sequence 2, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
;  APPLICANT: Salmeron, John
;  APPLICANT: Weislo, Laura
;  APPLICANT: Willits, Michael
;  APPLICANT: Mengiste, Tesfaye
;  TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
;  FILE REFERENCE: S-30857A/RTP2095
;  CURRENT APPLICATION NUMBER: US/09/519,232
;  CURRENT FILING DATE: 2000-03-06
;  NUMBER OF SEQ ID NOS: 74
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
;   LENGTH: 588
;   TYPE: PRT
;   ORGANISM: Nicotiana tabacum
US-09-519-232-2

  Query Match            56.7%;  Score 1672.5;  DB 4;  Length 588;
  Best Local Similarity  56.8%;  Pred. No. 3.9e-162;
  Matches  336;  Conservative  102;  Mismatches  119;  Indels   35;  Gaps    8;

Qy         11 AFSDSDSASVEE-------------GDADADADVEALRRLSDNLAAAF-RSPEDFAFLAD 56

Db          7 AFSDSNDISGSSSICCIGGGMTEFFSPETSPAEITSLKRLSETLESIFDASLPEFDYFAD 66

Qy         57 ARIAVPGGGGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGG 116

Db         67 AKLVV---SGPCKEIPVHRCILSARSPFFKNLFC--------GKKEKNSSKVELKEVM-- 113

Qy        117 GGEEVEVGYEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAAST 176

Db        114 --KEHEVSYDAVMSVLAYLYSGKVRPSPKDVCVCVDNDCSHVACRPAVAFLVEVLYTSFT 171

Qy        177 FQVAELTNLFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMIT 236

Db        172 FQISELVDKFQRHLLDILDKTAADDVMMVLSVANICGKACERLLSSCIEIIVKSNVDIIT 231

Qy        237 LEKSLPPDVIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTN 296

Db        232 LDKALPHDIVKQITDSRAELGLQGPESNGFPDKHVKRIHRALDSDDVELLQMLLREGHTT 291

Qy        297 LDDAFALHYAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKG 356

Db        292 LDDAYALHYAVAYCDAKTTAELLDLALADINHQNSRGYTVLHVAAMRKEPKIVVSLLTKG 351

Qy        357 ARPADVTFDGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEAS 416

Db        352 ARPSDLTSDGRKALQIAKRLTRLVDFSKSPEEGKSASNDRLCIEILEQAERRDPLLGEAS 411

Qy        417 VSLAMAGESLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPERQ 476

Db        412 VSLAMAGDDLRMKLLYLENRVGLAKLLFPMEAKVAMDIAQVDGTSEFPLASIGKKMANAQ 471

Qy        477 RTTVDLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIM--DDETDPVSLGRD 534

Db        472 RTTVDLNEAPFKIKEEHLNRLRALSRTVELGKRFFPRCSEVLNKIMDADDLSEIAYMGND 531

Qy        535 TSAE---KRKRFHDLQDVLQKAFHEDKEENDR-SGLSSSSSSTSIGAIRPRR 582

Db        532 TAEERQLKKQRYMELQEILTKAFTEDKEEYDKTNNISSSCSSTSKGVDKPNK 583


RESULT 3
US-09-519-232-64
; Sequence 64, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
;  APPLICANT: Salmeron, John
;  APPLICANT: Weislo, Laura
;  APPLICANT: Willits, Michael
;  APPLICANT: Mengiste, Tesfaye
;  TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
;  FILE REFERENCE: S-30857A/RTP2095
;  CURRENT APPLICATION NUMBER: US/09/519,232
;  CURRENT FILING DATE: 2000-03-06
;  NUMBER OF SEQ ID NOS: 74
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 64
;   LENGTH: 604
;   TYPE: PRT
;   ORGANISM: Beta vulgaris
US-09-519-232-64

  Query Match            55.2%;  Score 1629;  DB 4;  Length 604;
  Best Local Similarity  57.4%;  Pred. No. 1.2e-157;
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Qy        228 VRSNLDMITLEKSLPPDVIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVR 287

Db        244 VRSDIDVTTIDKSLPQNVVKQIIDTRKELGFTEPGRVEFPDKHVKRIHRALESDDVELVR 303

Qy        288 MLLTEGQTNLDDAFALHYAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPK 347

Db        304 MLLKERHTTLDDAYALHYAVAHCDAKTTTELLELGLADVNLRNLRGHTVLHVAAMRKEPK 363

Qy        348 IIVSLLTKGARPADVTFDGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAER 407

Db        364 IIVSLLTKGAHPSDITSDDKKALQIAKRLTKAVDFYKTTEQGKDAPKDRLCIEILEQAER 423

Qy        408 RDPQLGEASVSLAMAGESLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGS 467

Db        424 REPLLGEGSVSLAKAGDDLRMKLLYLENRVALARLLFPMEAKVAMDIAQVDGTSEFTLSK 483

Qy        468 GANPPPERQRTTVDLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIMD--DE 525

Db        484 NI---ADARRNAVDLNEAPFILKEEHLQRMKALSKTVELGKRFFPRCSDVLNKIMDAEDL 540

Qy        526 TDPVSLGRDTSAE---KRKRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTSIGAIRP 580

Db        541 SQLAFLGKDTPEERQRKRKRYLELQDALTKAFTEDKEEFDRSTLSSSSSSTPMG--RP 596
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RESULT 4
US-08-989-478-2
; Sequence 2, Application US/08989478
; Patent No. 5986082
;  GENERAL INFORMATION:
;    APPLICANT:  Uknes, Scott
;    APPLICANT:  Hunt, Michelle
;    APPLICANT:  Steiner, Henry-York
;    APPLICANT:  Ryals, John
;    TITLE OF INVENTION:  ALTERED FORMS OF THE NIM1 GENE CONFERRING
;    TITLE OF INVENTION:  DISEASE RESISTANCE IN PLANTS
;    NUMBER OF SEQUENCES:  32
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  No. 5986082artis Corporation
;      STREET:  3054 Cornwallis Road
;      CITY:  Research Triangle Park
;      STATE:  No. 5986082th Carolina
;      COUNTRY:  USA
;      ZIP:  27709
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/989,478
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/033,177
;      FILING DATE:  13-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,379
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,382
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,730
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,021
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,022
;      FILING DATE:  10-JAN-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Meigs, J. Timothy
;      REGISTRATION NUMBER:  38,241
;      REFERENCE/DOCKET NUMBER:  PF/5-21214/P1/CGC1911
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (919) 541-8587
;      TELEFAX:  (919) 541-8689
;   INFORMATION FOR SEQ ID NO:  2:
;     SEQUENCE CHARACTERISTICS:
;      LENGTH: 593 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;     MOLECULE TYPE:  protein
US-08-989-478-2

  Query Match             43.2%;  Score 1276;  DB 2;  Length 593;
  Best Local Similarity   47.2%;  Pred. No. 1.5e-121;
  Matches  273;  Conservative  113;  Mismatches  165;  Indels   28;  Gaps    9;

Qy          5 TSHVTNAFSDSDSASVEEGDADADADVEALRRLSDNLAAAFRSPEDFAFLADARIAVPGG 64
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Db         17 TSFVATDNTDSSIVYLAAEQVLTGPDVSALQLLSNSFESVFDSPDD--FYSDAKLVL--- 71

Qy         65 GGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGGGGEEVEVG 124
                  | ::  |||||||||| | :   |  ||          : :|||:|:     :: |||

Db         72 -SDGREVSFHRCVLSARSSFFKSALA--AAKKEKDSNNTAAVKLELKEI----AKDYEVG 124

Qy        125 YEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAASTFQVAELTN 184
              ::::  || |:|| ||    ||     | ||:| || | ||| || :||: |  |:: ||
Db        125 FDSVVTVLAYVYSSRVRPPPKGVSECADENCCHVACRPAVDFMLEVLYLAPIFKIPELIT 184

Qy        185 LFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLPPD 244
              |:|| ||||:||| ::: |:|| :||:| |:|||||:|| :::|:||:||::|||||| :
Db        185 LYQRHLLDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNVDMVSLEKSLPEE 244

Qy        245 VIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTNLDDAFALH 304
              ::|:||| |  |||  |: |    |||  :|:||||||:|||::|| |  |||||| |||
Db        245 LVKEIIDRRKELGLEVPKVK----KHVSNVHKALDSDDIELVKLLLKEDHTNLDDACALH 300

Qy        305 YAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADVTF 364
              :|| :|: |  |:|| | |||||||||||||||:|| |:||::|:||| |||  :: |
Db        301 FAVAYCNVKTATDLLKLDLADVNHRNPRGYTVLHVAAMRKEPQLILSLLEKGASASEATL 360

Qy        365 DGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMAGE 424
              :|| |: |:|: |   :  : |: | | | |||:|||| ::|:    :  | |:| :
Db        361 EGRTALMIAKQATMAVECNNIPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPSFAVAAD 420

Qy        425 SLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPER----QRTTV 480
              |:  || |||||||: :|| ||: ||:||:: || || : |      :|    :||:
Db        421 ELKMTLLDLENRVALAQRLFPTEAQAAMEIAEMKGTCEFIVTS---LEPDRLTGTKRTSP 477

Qy        481 DLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIMD-DETDPVSLGRDTSAEK 539
              :  :|| : ||| :|: |||||||||||||||| |||:||: ::   :: | | :|||
Db        478 GVKIAPFRILEEHQSRLKALSKTVELGKRFFPRCSAVLDQIMNCEDLTQLACGEDDTAEK 537

Qy        540 R----KRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTS 574
              |    :|: ::|: |:||| ||  |   | |: |:||||
Db        538 RLQKKQRYMEIQETLKKAFSEDNLELGNSSLTDSTSSTS 576


RESULT 5
US-08-996-685-2
; Sequence 2, Application US/08996685
; Patent No. 6031153
;  GENERAL INFORMATION:
;    APPLICANT:  Ryals, John
;    APPLICANT:  Friedrich, Leslie
;    APPLICANT:  Uknes, Scott
;    APPLICANT:  Molina, Antonio
;    APPLICANT:  Ruess, Wilhelm
;    APPLICANT:  Knauf-Beiter, Gertrude
;    APPLICANT:  Kung, Ruth
;    APPLICANT:  Kessmann, Helmut
;    APPLICANT:  Oostendorp, Michael
;    TITLE OF INVENTION:  METHOD FOR PROTECTING PLANTS
;    NUMBER OF SEQUENCES:  32
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  No. 6031153artis Corporation
;      STREET:  3054 Cornwallis Road
;      CITY:  Research Triangle Park
;      STATE:  No. 6031153th Carolina
;      COUNTRY:  USA
;      ZIP:  27709
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/996,685
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/761,543
;      FILING DATE:  6-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,378
;      FILING DATE:  27-DEC-1996
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;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,379
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,382
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,730
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,021
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,022
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,024
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/875,015
;      FILING DATE:  16-JUL-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Meigs, J. Timothy
;      REGISTRATION NUMBER:  38,241
;      REFERENCE/DOCKET NUMBER:  PF/5-21215/P1/CGC1912
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (919) 541-8587
;      TELEFAX:  (919) 541-8689
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;     LENGTH: 593 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-996-685-2

  Query Match             43.2%;  Score 1276;  DB 3;  Length 593;
  Best Local Similarity   47.2%;  Pred. No. 1.5e-121;
  Matches  273;  Conservative  113;  Mismatches  165;  Indels   28;  Gaps    9;

Qy          5 TSHVTNAFSDSDSASVEEGDADADADVEALRRLSDNLAAAFRSPEDFAFLADARIAVPGG 64
              || |    :||    :          || ||: ||::  : | ||:|  | :||:: :
Db         17 TSFVATDNTDSSIVYLAAEQVLTGPDVSALQLLSNSFESVFDSPDD--FYSDAKLVL--- 71

Qy         65 GGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGGGGEEVEVG 124
                | ::  |||||||||| | :   |  ||          : :|||:|:    :: |||
Db         72 -SDGREVSFHRCVLSARSSFFKSALA--AAKKEKDSNNTAAVKLELKEI----AKDYEVG 124

Qy        125 YEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAASTFQVAELTN 184
              ::::  || |:|| ||   ||    | ||:| || | ||| || :||: |  |:: ||
Db        125 FDSVVTVLAYVYSSRVRPPPKGVSECADENCCHVACRPAVDFMLEVLYLAFIFKIPELIT 184

Qy        185 LFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLPPD 244
              |:|| ||||:||| ::: |:|| :||:| |:|||||:|| :::|:||:||::|||||| :
Db        185 LYQRHLLDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNVDMVSLEKSLPEE 244

Qy        245 VIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTNLDDAFALH 304
              ::|:||| |  |||  |: |    |||  :|:|||||:|||::|| |  |||||| |||
Db        245 LVKEIIDRRKELGLEVPKVK----KHVSNVHKALDSDDIELVKLLLKEDHTNLDDACALH 300

Qy        305 YAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADVTF 364
              :|| :|: |  |:|| | ||||||||||||||||:|| |:||::|:||| |||  :: |
Db        301 FAVAYCNVKTATDLLKLDLADVNHRNPRGYTVLHVAAMRKEPQLILSLLEKGASASEATL 360

Qy        365 DGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMAGE 424
              :|| |: |:|: |   :   : |: | | | |||:|||| ::|:    :   | |:| :
Db        361 EGRTALMIAKQATMAVECNNIPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPSFAVAAD 420

Qy        425 SLRGRLLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPER----QRTTV 480
              |:  || |||||||: :|| ||: ||:||:: || || : |     |:|    :||:
Db        421 ELKMTLLDLENRVALAQRLFPTEAQAAMEIAEMKGTCEFIVTS---LEPDRLTGTKRTSP 477

Qy        481 DLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIMD-DETDPVSLGRDTSAEK 539
                :  :|| : ||| :|: |||||||||||||||| |||:||: ::   :: | | :|||
Db        478 GVKIAPFRILEEHQSRLKALSKTVELGKRFFPRCSAVLDQIMNCEDLTQLACGEDDTAEK 537

Qy        540 R----KRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTS 574
              |    :|: ::|: |:||| ||  |    | |: |:|||
Db        538 RLQKKQRYMEIQETLKKAFSEDNLELGNSSLTDSTSSTS 576


RESULT 6
US-08-880-179-3
; Sequence 3, Application US/08880179
; Patent No. 6091004
;  GENERAL INFORMATION:
;    APPLICANT:  Ryals, John
;    APPLICANT:  Delaney, Terry
;    APPLICANT:  Friedrich, Leslie
;    APPLICANT:  Weymann, Kristianna
;    APPLICANT:  Lawton, Kay
;    APPLICANT:  Ellis, Daniel
;    APPLICANT:  Uknes, Scott
;    APPLICANT:  Jesse, Taco
;    APPLICANT:  Vos, Pieter
;    TITLE OF INVENTION:  GENE ENCODING A PROTEIN INVOLVED IN THE
;    TITLE OF INVENTION:  SIGNAL TRANSDUCTION CASCADE LEADING TO SYSTEMIC ACQUIRED RESIS
;    TITLE OF INVENTION:  IN PLANTS
;    NUMBER OF SEQUENCES:  17
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  No. 6091004artis Corporation
;      STREET:  520 White Plains Road, P.O. Box 2005
;      CITY:  Tarrytown
;      STATE:  New York
;      COUNTRY:  USA
;      ZIP:  10591
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/880,179
;      FILING DATE:
;      CLASSIFICATION:  800
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Meigs, J. Timothy
;      REGISTRATION NUMBER:  38,241
;      REFERENCE/DOCKET NUMBER:  CGC 1909
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (919) 541-8587
;      TELEFAX:  (919) 541-8689
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;     LENGTH: 593 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-880-179-3

  Query Match             43.2%;  Score 1276;  DB 3;  Length 593;
  Best Local Similarity   47.2%;  Pred. No. 1.5e-121;
  Matches  273;  Conservative  113;  Mismatches  165;  Indels   28;  Gaps    9;

Qy          5 TSHVTNAFSDSDSASVEEGDADADADVEALRRLSDNLAAAFRSPEDFAFLADARIAVPGG 64
              || |    :||    :          || ||: ||::  : | ||:|  | :||:: :
Db         17 TSFVATDNTDSSIVYLAAEQVLTGPDVSALQLLSNSFESVFDSPDD--FYSDAKLVL--- 71

Qy         65 GGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGGGGEEVEVG 124
                | ::  |||||||||| | :   |  ||          : :|||:|:    :: |||
Db         72 -SDGREVSFHRCVLSARSSFFKSALA--AAKKEKDSNNTAAVKLELKEI----AKDYEVG 124

Qy        125 YEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAASTFQVAELTN 184
              ::::  || |:|| ||   ||    | ||:| || | ||| || :||: |  |:: ||
Db        125 FDSVVTVLAYVYSSRVRPPPKGVSECADENCCHVACRPAVDFMLEVLYLAFIFKIPELIT 184
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Qy        185 LFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLPPD 244
              |:|| ||||:||| ::: |:|| :||:| |:|||||:|| :::|:|||:||::|||||| :
Db        185 LYQRHLLDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNVDMVSLEKSLPEE 244

Qy        245 VIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTNLDDAFALH 304
              ::|:||| |  |||  |: |    |||  :|:||||||:|||::|| |  |||||| |||
Db        245 LVKEIIDRRKELGLEVPKVK----KHVSNVHKALDSDDIELVKLLLKEDHTNLDDACALH 300

Qy        305 YAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADVTF 364
              :|| :|: |  |:|| | |||||||||||||||:|| |:||::|:||| |||  :: |
Db        301 FAVAYCNVKTATDLLKLDLADVNHRNPRGYTVLHVAAMRKEPQLILSLLEKGASASEATL 360

Qy        365 DGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMAGE 424
              :|| |: |:|: |   :   : |: | | | |||:||||| ::|:    :   | |:| :
Db        361 EGRTALMIAKQATMAVECNNIPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPSFAVAAD 420

Qy        425 SLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPER----QRTTV 480
              |:  || ||||||||: :|| ||: ||:||:: || || : |     |:|    :||:
Db        421 ELKMTLLDLENRVALAQRLFPTEAQAAMEIAEMKGTCEFIVTS---LEPDRLTGTKRTSP 477

Qy        481 DLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIMD-DETDPVSLGRDTSAEK 539
              :  :|| : ||| :|: |||||||||||||||||| |||:||: ::   :: | | :|||
Db        478 GVKIAPFRILEEHQSRLKALSKTVELGKRFFPRCSAVLDQIMNCEDLTQLACGEDDTAEK 537

Qy        540 R----KRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTS 574
              |    :|: ::|: |:||| ||  |   | |: |:|||
Db        538 RLQKKQRYMEIQETLKKAFSEDNLELGNSSLTDSTSSTS 576


RESULT 7
US-08-989-478-8
; Sequence 8, Application US/08989478
; Patent No. 5986082
;  GENERAL INFORMATION:
;    APPLICANT:  Uknes, Scott
;    APPLICANT:  Hunt, Michelle
;    APPLICANT:  Steiner, Henry-York
;    APPLICANT:  Ryals, John
;    TITLE OF INVENTION:  ALTERED FORMS OF THE NIM1 GENE CONFERRING
;    TITLE OF INVENTION:  DISEASE RESISTANCE IN PLANTS
;    NUMBER OF SEQUENCES:  32
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  No. 5986082artis Corporation
;      STREET:  3054 Cornwallis Road
;      CITY:  Research Triangle Park
;      STATE:  No. 5986082th Carolina
;      COUNTRY:  USA
;      ZIP:  27709
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/989,478
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/033,177
;      FILING DATE:  13-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,379
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,382
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,730
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,021
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,022
;      FILING DATE:  10-JAN-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Meigs, J. Timothy
;      REGISTRATION NUMBER:  38,241
;      REFERENCE/DOCKET NUMBER:  PP/5-21214/P1/CGC1911
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (919) 541-8587
;      TELEFAX:  (919) 541-8689
;  INFORMATION FOR SEQ ID NO:  8:
;    SEQUENCE CHARACTERISTICS:
;     LENGTH: 593 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-989-478-8

  Query Match             43.0%;  Score 1270;  DB 2;  Length 593;
  Best Local Similarity   47.0%;  Pred. No. 6.4e-121;
  Matches  272;  Conservative  113;  Mismatches  166;  Indels   28;  Gaps    9;

Qy          5 TSHVTNAFSDSDSASVEEGDADADADVEALRRLSDNLAAAFRSPEDFAFLADARIAVPGG 64
              || |    :||    :           || ||: ||::  | | :|:|  | :||:: :
Db         17 TSFVATDNTDSSIVYLAAEQVLTGPDVSALQLLSNSFEAVFDAPDD--FYSDAKLVL--- 71

Qy         65 GGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGGGGEEVEVG 124
                | ::  ||||||||| | :   |  ||          : :|||:|:     :: |||
Db         72 -SDGREVSFHRCVLSARSSFFKSALA--AAKKEKDSNNTAAVKLELKEI----AKDYEVG 124

Qy        125 YEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAASTFQVAELTN 184
              ::::  || |:|| ||    ||     | ||:| || | ||| || :||: |  |:: ||
Db        125 FDSVVTVLAYVYSSRVRPPPKGVSECADENCCHVACRPAVDFMLEVLYLAFIFKIPELIT 184

Qy        185 LFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLPPD 244
              |:|| ||||:||| ::: |:|| :||:| |:|||||:|| :::|:|||:||::|||||| :
Db        185 LYQRHLLDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNVDMVSLEKSLPEE 244

Qy        245 VIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTNLDDAFALH 304
              ::|:||| |  |||  |: |    |||  :|:||||||:|||::|| |  |||||| |||
Db        245 LVKEIIDRRKELGLEVPKVK----KHVSNVHKALDSDDIELVKLLLKEDHTNLDDACALH 300

Qy        305 YAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADVTF 364
              :|| :|: |  |:|| | |||||||||||||||:|| |:||::|:||| |||  :: |
Db        301 FAVAYCNVKTATDLLKLDLADVNHRNPRGYTVLHVAAMRKEPQLILSLLEKGASASEATL 360

Qy        365 DGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMAGE 424
              :|| |: |:|: |   :   : |: | | | |||:||||| ::|:    :   | |:| :
Db        361 EGRTALMIAKQATMAVECNNIPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPSFAVAAD 420

Qy        425 SLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPER----QRTTV 480
              |:  || ||||||||: :|| ||: ||:||:: || || : |     |:|    :||:
Db        421 ELKMTLLDLENRVALAQRLFPTEAQAAMEIAEMKGTCEFIVTS---LEPDRLTGTKRTSP 477

Qy        481 DLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIMD-DETDPVSLGRDTSAEK 539
              :  :|| : ||| :|: |||||||||||||||||| |||:||: ::   :: | | :|||
Db        478 GVKIAPFRILEEHQSRLKALSKTVELGKRFFPRCSAVLDQIMNCEDLTQLACGEDDTAEK 537

Qy        540 R----KRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTS 574
              |    :|: ::|: |:||| ||  |   | |: |:|||
Db        538 RLQKKQRYMEIQETLKKAFSEDNLELGNLSLTDSTSSTS 576


RESULT 8
US-08-996-685-8
; Sequence 8, Application US/08996685
; Patent No. 6031153
;  GENERAL INFORMATION:
;    APPLICANT:  Ryals, John
;    APPLICANT:  Friedrich, Leslie
;    APPLICANT:  Uknes, Scott
;    APPLICANT:  Molina, Antonio
;    APPLICANT:  Ruess, Wilhelm
;    APPLICANT:  Knauf-Beiter, Gertrude
```

```
;    APPLICANT:  Kung, Ruth
;    APPLICANT:  Kessmann, Helmut
;    APPLICANT:  Oostendorp, Michael
;    TITLE OF INVENTION:  METHOD FOR PROTECTING PLANTS
;    NUMBER OF SEQUENCES:  32
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  No. 6031153artis Corporation
;      STREET:  3054 Cornwallis Road
;      CITY:  Research Triangle Park
;      STATE:  No. 6031153th Carolina
;      COUNTRY:  USA
;      ZIP:  27709
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/996,685
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/761,543
;      FILING DATE:  6-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,378
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,379
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,382
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,730
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,021
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,022
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,024
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/875,015
;      FILING DATE:  16-JUL-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Meigs, J. Timothy
;      REGISTRATION NUMBER:  38,241
;      REFERENCE/DOCKET NUMBER:  PF/5-21215/P1/CGC1912
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (919) 541-8587
;      TELEFAX:  (919) 541-8689
;  INFORMATION FOR SEQ ID NO:  8:
;    SEQUENCE CHARACTERISTICS:
;     LENGTH: 593 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-996-685-8

  Query Match             43.0%;  Score 1270;  DB 3;  Length 593;
  Best Local Similarity   47.0%;  Pred. No. 6.4e-121;
  Matches  272;  Conservative  113;  Mismatches  166;  Indels   28;  Gaps    9;

Qy          5 TSHVTNAFSDSDSASVEEGDADADADVEALRRLSDNLAAAFRSPEDFAFLADARIAVPGG 64
              || |    :||    :          || ||: ||::  | | :|:|  | :||:: :
Db         17 TSFVATDNTDSSIVYLAAEQVLTGPDVSALQLLSNSFEAVFDAPDD--FYSDAKLVL--- 71

Qy         65 GGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGGGGEEVEVG 124
                  | ::  ||||||||| | :   |  ||          : :|||:|:     :: |||
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Db         72 -SDGREVSFHRCVLSARSSFFKSALA--AAKKEKDSNNTAAVKLELKEI----AKDYEVG 124

Qy        125 YEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAASTFQVAELTN 184
              ::::  || |:|| ||   ||    | ||:| || | ||| || :||:  |  |:: ||
Db        125 FDSVVTVLAYVYSSRVRPPPKGVSECADENCCHVACRPAVDFMLEVLYLAFIFKIPELIT 184

Qy        185 LFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLPPD 244
              |:|| ||||:||| ::: |:|| :||:| |:|||||:|| :::|:|:|::|||::|||||| :
Db        185 LYQRHLLDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNVDMVSLEKSLPEE 244

Qy        245 VIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTNLDDAFALH 304
              ::|:||| |  |||  |: |    |||  :|:||||||:|||::|| |  |||||| |||
Db        245 LVKEIIDRRKELGLEVPKVK----KHVSNVHKALDSDDIELVKLLLKEDHTNLDDACALH 300

Qy        305 YAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADVTF 364
              :|| :|: |  |:|| | |||||||||||||||:|| |:|||::|:||| |||  :: |
Db        301 FAVAYCNVKTATDLLKLDLADVNHRNPRGYTVLHVAAMRKEPQLILSLLEKGASASEATL 360

Qy        365 DGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMAGE 424
              :|| |: |:|: |   :   : |: | | | |||:||||| ::|:    :   | |:| :
Db        361 EGRTALMIAKQATMAVECNNIPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPSFAVAAD 420

Qy        425 SLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPER----QRTTV 480
              |:  || ||||||||: :|| ||: ||:||:: || || : |      |:|    :||:
Db        421 ELKMTLLDLENRVALAQRLFPTEAQAAMEIAEMKGTCEFIVTS---LEPDRLTGTKRTSP 477

Qy        481 DLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIMD-DETDPVSLGRDTSAEK 539
              :  :|| : ||| :|: ||||||||||||||||| |||:||: ::   :: | | :|||
Db        478 GVKIAPFRILEEHQSRLKALSKTVELGKRFFPRCSAVLDQIMNCEDLTQLACGEDDTAEK 537

Qy        540 R----KRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTS 574
              |    :|: ::|: |:||| ||  |     |: |:|||
Db        538 RLQKKQRYMEIQETLKKAFSEDNLELGNLSLTDSTSSTS 576


RESULT 9
US-09-519-232-6
; Sequence 6, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
;  APPLICANT: Salmeron, John
;  APPLICANT: Weislo, Laura
;  APPLICANT: Willits, Michael
;  APPLICANT: Mengiste, Tesfaye
;  TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
;  FILE REFERENCE: S-30857A/RTP2095
;  CURRENT APPLICATION NUMBER: US/09/519,232
;  CURRENT FILING DATE: 2000-03-06
;  NUMBER OF SEQ ID NOS: 74
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
;   LENGTH: 579
;   TYPE: PRT
;   ORGANISM: Brassica napus
US-09-519-232-6

  Query Match             41.4%;  Score 1222.5;  DB 4;  Length 579;
  Best Local Similarity   45.9%;  Pred. No. 4.5e-116;
  Matches  260;  Conservative  110;  Mismatches  160;  Indels   37;  Gaps   10;

Qy         14 DSDSASVEEGDADADADVEALRRLSDNLAAAFRSPEDFAFLADARIAVPGGGGGGGDLRV 73
              :| |::|   :     :| | : ||::| : | |||  || :||:: :       ::
Db         27 NSGSSTVXPTELXTRPEVSAFQLLSNSLESVFDSPE--AFYSDAKLVL----SDDKEVSF 80

Qy         74 HRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGGGGEEVEVGYEALRLVLD 133
              |||:|||||     :| : |  ||     :    :|||: |       | :||:::  ||
Db         81 HRCILSARS-----LFFKAALXAAEKVQKSTPVKLELKTL----AAEYDVGFDSVVAVLA 131

Qy        134 YLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAASTFQVAELTNLFQRRLLDV 193
              |:|||||   ||     | |  | || | ||| || :||: |  ||: ||  ::|| ||||
Db        132 YVYSGRVRPPPKGVSECADXSCCHVACRPAVDFMVEVLYLAFVFQIQELVTMYQRHLLDV 191

Qy        194 LDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLPPDVIKQIIDAR 253
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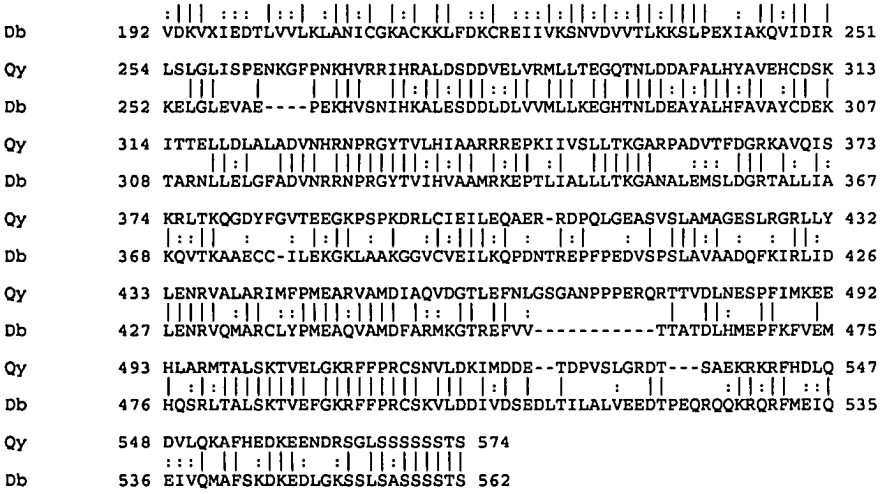
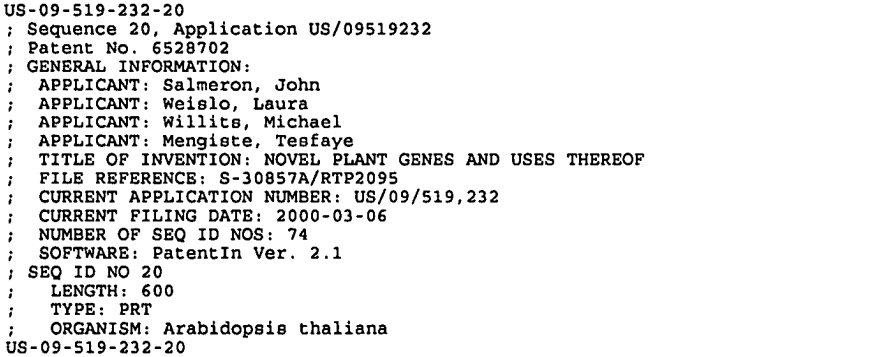
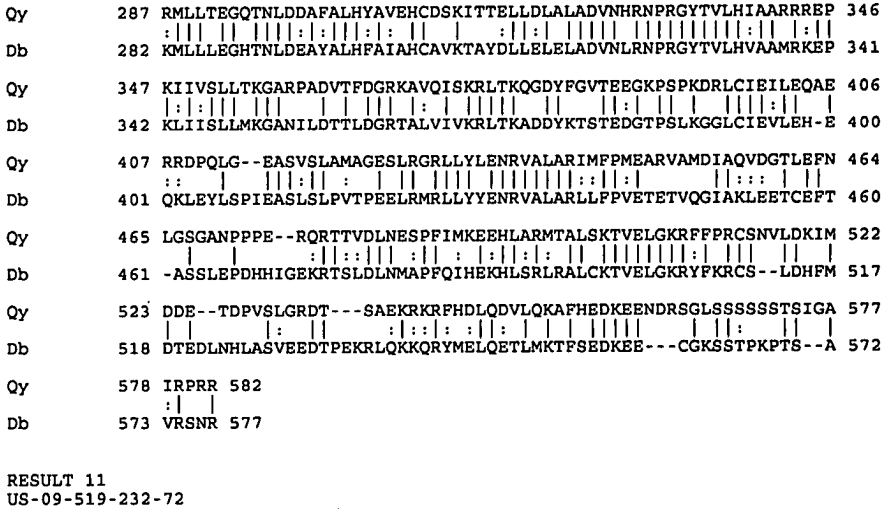


RESULT 10
US-09-519-232-20
; Sequence 20, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Willits, Michael
; APPLICANT: Mengiste, Tesfaye
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; CURRENT FILING DATE: 2000-03-06
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 20
; LENGTH: 600
; TYPE: PRT
; ORGANISM: Arabidopsis thaliana
US-09-519-232-20

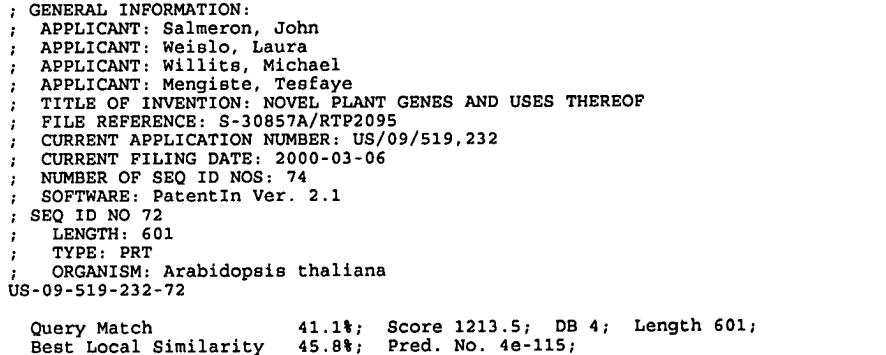
Query Match 41.1%; Score 1213.5; DB 4; Length 600;
Best Local Similarity 45.8%; Pred. No. 3.9e-115;
Matches 277; Conservative 105; Mismatches 172; Indels 51; Gaps 17;





RESULT 11
US-09-519-232-72
; Sequence 72, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Willits, Michael
; APPLICANT: Mengiste, Tesfaye
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; CURRENT FILING DATE: 2000-03-06
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 72
; LENGTH: 601
; TYPE: PRT
; ORGANISM: Arabidopsis thaliana
US-09-519-232-72

Query Match 41.1%; Score 1213.5; DB 4; Length 601;
Best Local Similarity 45.8%; Pred. No. 4e-115;
Matches 277; Conservative 105; Mismatches 172; Indels 51; Gaps 17;



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Qy        347 KIIVSLLTKGARPADVTFDGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAE 406
              |:|:||| |||   | | ||| |: | |||||  ||   ||:| || |  ||||:|| |
Db        343 KLIISLLMKGANILDTTLDGRTALVIVKRLTKADDYKTSTEDGTPSLKGGLCIEVLEH-E 401

Qy        407 RRDPQLG--EASVSLAMAGESLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFN 464
              ::   |   |||:|| :  | || |||| |||||||::||:|      ||::: | ||
Db        402 QKLEYLSPIEASLSLPVTPEELRMRLLYYENRVALARLLFPVETETVQGIAKLEETCEFT 461

Qy        465 LGSGANPPPE--RQRTTVDLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIM 522
                |   |      :||::||| :|| : |:|:|: || |||||||:| ||| || |
Db        462 -ASSLEPDHHIGEKRTSLDLNMAPFQIHEKHLSRLRALCKTVELGKRYFKRCS--LDHFM 518

Qy        523 DDE--TDPVSLGRDT---SAEKRKRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTSIGA 577
              | |     |:  ||     :|::|: :||: | || | |||||     | ||:   ||  |
Db        519 DTEDLNHLASVEEDTPEKRLQKKQRYMELQETLMKTFSEDKEE---CGKSSTPKPTS--A 573

Qy        578 IRPRR 582
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Db        574 VRSNR 578
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RESULT 12
US-08-989-478-12
; Sequence 12, Application US/08989478
; Patent No. 5986082
;  GENERAL INFORMATION:
;    APPLICANT:  Uknes, Scott
;    APPLICANT:  Hunt, Michelle
;    APPLICANT:  Steiner, Henry-York
;    APPLICANT:  Ryals, John
;    TITLE OF INVENTION:  ALTERED FORMS OF THE NIM1 GENE CONFERRING
;    TITLE OF INVENTION:  DISEASE RESISTANCE IN PLANTS
;    NUMBER OF SEQUENCES:  32
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  No. 5986082artis Corporation
;      STREET:  3054 Cornwallis Road
;      CITY:  Research Triangle Park
;      STATE:  No. 5986082th Carolina
;      COUNTRY:  USA
;      ZIP:  27709
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/989,478
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/033,177
;      FILING DATE:  13-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,379
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,382
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,730
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,021
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,022
;      FILING DATE:  10-JAN-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Meigs, J. Timothy
;      REGISTRATION NUMBER:  38,241
;      REFERENCE/DOCKET NUMBER:  PF/5-21214/P1/CGC1911
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (919) 541-8587
;      TELEFAX:  (919) 541-8689
;  INFORMATION FOR SEQ ID NO:  12:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH: 521 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-989-478-12

  Query Match             40.3%;  Score 1188.5;  DB 2;  Length 521;
  Best Local Similarity   48.0%;  Pred. No. 1.1e-112;
  Matches  251;  Conservative  100;  Mismatches  149;  Indels   23;  Gaps    7;

Qy          5 TSHVTNAFSDSDSASVEEGDADADADVEALRRLSDNLAAAFRSPEDFAFLADARIAVPGG 64
              || |    :||    :          || ||: ||::  : | ||:|  | :||:: :
Db         17 TSFVATDNTDSSIVYLAAEQVLTGPDVSALQLLSNSFESVFDSPDD--FYSDAKLVL--- 71

Qy         65 GGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGGGGEEVEVG 124
                | ::  ||||||||| | :   |  ||          : :|||:|:     :: |||
Db         72 -SDGREVSFHRCVLSARSSFFKSALA--AAKKEKDSNNTAAVKLELKEI----AKDYEVG 124

Qy        125 YEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAASTFQVAELTN 184
              ::::  || |:|| ||   ||    | ||:| || | ||| || :||: |  |:: ||
Db        125 PDSVVTVLAYVYSSRVRPPPKGVSECADENCCHVACRPAVDFMLEVLYLAFIFKIPELIT 184

Qy        185 LFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLPPD 244
              |:|| ||||:||| ::: |:|| :||:| |:|||||:|| :::|:||:||::|||||| :
Db        185 LYQRHLLDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNVDMVSLEKSLPEE 244

Qy        245 VIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTNLDDAFALH 304
              ::|:||| |  |||  |: |    |||  :|:||||||:|||::|| |  |||||| |||
Db        245 LVKEIIDRRKELGLEVPKVK----KHVSNVHKALDSDDIELVKLLLKEDHTNLDDACALH 300

Qy        305 YAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADVTF 364
              :|| :|: |  |:|| | ||||||||||||||||:|| |:||::|:||| |||  :: |
Db        301 FAVAYCNVKTATDLLKLDLADVNHRNPRGYTVLHVAAMRKEPQLILSLLEKGASASEATL 360

Qy        365 DGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMAGE 424
              :|| |: |:|: |   :   : |: | | | |||:||||| ::|:      :   | |:| :
Db        361 EGRTALMIAKQATMAVECNNIPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPSFAVAAD 420

Qy        425 SLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPER----QRTTV 480
              |:  || ||||||||: :|| ||: ||:||:: || || : |      |:|    :||:
Db        421 ELKMTLLDLENRVALAQRLFPTEAQAAMEIAEMKGTCEFIVTS---LEPDRLTGTKRTSP 477

Qy        481 DLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIMD 523
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Db        478 GVKIAPFRILEEHQSRLKALSKTVELGKRFFPRCSAVLDQIMN 520
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```
RESULT 13
US-08-996-685-12
; Sequence 12, Application US/08996685
; Patent No. 6031153
;  GENERAL INFORMATION:
;    APPLICANT:  Ryals, John
;    APPLICANT:  Friedrich, Leslie
;    APPLICANT:  Uknes, Scott
;    APPLICANT:  Molina, Antonio
;    APPLICANT:  Ruess, Wilhelm
;    APPLICANT:  Knauf-Beiter, Gertrude
;    APPLICANT:  Kung, Ruth
;    APPLICANT:  Kessmann, Helmut
;    APPLICANT:  Oostendorp, Michael
;    TITLE OF INVENTION:  METHOD FOR PROTECTING PLANTS
;    NUMBER OF SEQUENCES:  32
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  No. 6031153artis Corporation
;      STREET:  3054 Cornwallis Road
;      CITY:  Research Triangle Park
;      STATE:  No. 6031153th Carolina
;      COUNTRY:  USA
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;      ZIP:  27709
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/996,685
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/761,543
;      FILING DATE:  6-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,378
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,379
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,382
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,730
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,021
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,022
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,024
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/875,015
;      FILING DATE:  16-JUL-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Meigs, J. Timothy
;      REGISTRATION NUMBER:  38,241
;      REFERENCE/DOCKET NUMBER:  PF/5-21215/P1/CGC1912
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (919) 541-8587
;      TELEFAX:  (919) 541-8689
;  INFORMATION FOR SEQ ID NO:  12:
;    SEQUENCE CHARACTERISTICS:
;     LENGTH: 521 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-996-685-12

  Query Match             40.3%;  Score 1188.5;  DB 3;  Length 521;
  Best Local Similarity   48.0%;  Pred. No. 1.1e-112;
  Matches  251;  Conservative  100;  Mismatches  149;  Indels   23;  Gaps    7;

Qy          5 TSHVTNAFSDSDSASVEEGDADADADVEALRRLSDNLAAAFRSPEDFAFLADARIAVPGG 64
              || |    :||    :          || ||: ||::  : | ||:|  | :||:: :
Db         17 TSFVATDNTDSSIVYLAAEQVLTGPDVSALQLLSNSFESVFDSPDD--FYSDAKLVL--- 71

Qy         65 GGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGEDGSERLELRELLGGGGEEVEVG 124
                | ::  ||||||||| | :   |  ||          : :|||:|:     :: |||
Db         72 -SDGREVSFHRCVLSARSSFFKSALA--AAKKEKDSNNTAAVKLELKEI----AKDYEVG 124

Qy        125 YEALRLVLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAASTFQVAELTN 184
              ::::  || |:|| ||    ||     | ||:| || | ||| || :||: |  |:: ||
Db        125 FDSVVTVLAYVYSSRVRPPPKGVSECADENCCHVACRPAVDFMLEVLYLAFIFKIPELIT 184

Qy        185 LFQRRLLDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLPPD 244
              |:|| ||||:||| ::: |:|| :||:| |:|||||:|| :::|:||:||::|||||| :
Db        185 LYQRHLLDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNVDMVSLEKSLPEE 244

Qy        245 VIKQIIDARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTNLDDAFALH 304
              ::|:||| |  |||  |: |    |||  :|:||||||:|||::|| |  |||||| |||
Db        245 LVKEIIDRRKELGLEVPKVK----KHVSNVHKALDSDDIELVKLLLKEDHTNLDDACALH 300

Qy        305 YAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADVTF 364
              :|| :|: |  |:|| | ||||||||||||||||:|| |:||::|:||| |||  :: |
Db        301 FAVAYCNVKTATDLLKLDLADVNHRNPRGYTVLHVAAMRKEPQLILSLLEKGASASEATL 360

Qy        365 DGRKAVQISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMAGE 424
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Db        361 EGRTALMIAKQATMAVECNNIPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPSFAVAAD 420

Qy        425 SLRGRLLYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPER----QRTTV 480
              |:  || ||||||||: :|| ||: ||:||:: || || : |     |:|    :||:
Db        421 ELKMTLLDLENRVALAQRLFPTEAQAAMEIAEMKGTCEFIVTS---LEPDRLTGTKRTSP 477

Qy        481 DLNESPFIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIMD 523
              :  :|| : ||| :|: |||||||||||||||| |||:||:
Db        478 GVKIAPFRILEEHQSRLKALSKTVELGKRFFPRCSAVLDQIMN 520


RESULT 14
US-08-989-478-10
; Sequence 10, Application US/08989478
; Patent No. 5986082
;  GENERAL INFORMATION:
;    APPLICANT:  Uknes, Scott
;    APPLICANT:  Hunt, Michelle
;    APPLICANT:  Steiner, Henry-York
;    APPLICANT:  Ryals, John
;    TITLE OF INVENTION:  ALTERED FORMS OF THE NIM1 GENE CONFERRING
;    TITLE OF INVENTION:  DISEASE RESISTANCE IN PLANTS
;    NUMBER OF SEQUENCES:  32
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  No. 5986082artis Corporation
;      STREET:  3054 Cornwallis Road
;      CITY:  Research Triangle Park
;      STATE:  No. 5986082th Carolina
;      COUNTRY:  USA
;      ZIP:  27709
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/989,478
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/033,177
;      FILING DATE:  13-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,379
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,382
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,730
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,021
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,022
;      FILING DATE:  10-JAN-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Meigs, J. Timothy
;      REGISTRATION NUMBER:  38,241
;      REFERENCE/DOCKET NUMBER:  PF/5-21214/P1/CGC1911
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (919) 541-8587
;      TELEFAX:  (919) 541-8689
```

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;  INFORMATION FOR SEQ ID NO:  10:
;    SEQUENCE CHARACTERISTICS:
;     LENGTH: 469 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-989-478-10

  Query Match             38.4%;  Score 1134;  DB 2;  Length 469;
  Best Local Similarity   51.4%;  Pred. No. 3.6e-107;
  Matches  233;  Conservative   89;  Mismatches  115;  Indels   16;  Gaps    5;

Qy        131 VLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAASTFQVAELTNLFQRRL 190
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Db          7 VLAYVYSSRVRPPPKGVSECADENCCHVACRPAVDFMLEVLYLAFIFKIPELITLYQRHL 66

Qy        191 LDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLPPDVIKQII 250
              |||:||| ::: |:|| :||:| |:|||||:|| :::|:||:||::|||||| :::|:||
Db         67 LDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNVDMVSLEKSLPEELVKEII 126

Qy        251 DARLSLGLISPENKGFPNKHVRRIHRALDSDDVELVRMLLTEGQTNLDDAFALHYAVEHC 310
              | |  |||  |: |    |||  :|:||||||:|||::|| |  |||||| |||:|| :|
Db        127 DRRKELGLEVPKVK----KHVSNVHKALDSDDIELVKLLLKEDHTNLDDACALHFAVAYC 182

Qy        311 DSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADVTFDGRKAV 370
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Db        183 NVKTATDLLKLDLADVNHRNPRGYTVLHVAAMRKEPQLILSLLEKGASASEATLEGRTAL 242

Qy        371 QISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMAGESLRGRL 430
               |:|: |   :   : |: | | | |||:|||| ::|:    :   | |:| : |:  |
Db        243 MIAKQATMAVECNNIPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPSFAVAADELKMTL 302

Qy        431 LYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPER----QRTTVDLNESP 486
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Qy        542 RFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTS 574
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RESULT 15
US-08-996-685-10
; Sequence 10, Application US/08996685
; Patent No. 6031153
;  GENERAL INFORMATION:
;    APPLICANT:  Ryals, John
;    APPLICANT:  Friedrich, Leslie
;    APPLICANT:  Uknes, Scott
;    APPLICANT:  Molina, Antonio
;    APPLICANT:  Ruess, Wilhelm
;    APPLICANT:  Knauf-Beiter, Gertrude
;    APPLICANT:  Kung, Ruth
;    APPLICANT:  Kessmann, Helmut
;    APPLICANT:  Oostendorp, Michael
;    TITLE OF INVENTION:  METHOD FOR PROTECTING PLANTS
;    NUMBER OF SEQUENCES:  32
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  No. 6031153artis Corporation
;      STREET:  3054 Cornwallis Road
;      CITY:  Research Triangle Park
;      STATE:  No. 6031153th Carolina
;      COUNTRY:  USA
;      ZIP:  27709
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/996,685
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/761,543
;      FILING DATE:  6-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,378
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,379
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,382
;      FILING DATE:  27-DEC-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/034,730
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,021
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,022
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/035,024
;      FILING DATE:  10-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/875,015
;      FILING DATE:  16-JUL-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Meigs, J. Timothy
;      REGISTRATION NUMBER:  38,241
;      REFERENCE/DOCKET NUMBER:  PF/5-21215/P1/CGC1912
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (919) 541-8587
;      TELEFAX:  (919) 541-8689
;  INFORMATION FOR SEQ ID NO:  10:
;    SEQUENCE CHARACTERISTICS:
;     LENGTH: 469 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-996-685-10

  Query Match             38.4%;  Score 1134;  DB 3;  Length 469;
  Best Local Similarity   51.4%;  Pred. No. 3.6e-107;
  Matches  233;  Conservative   89;  Mismatches  115;  Indels   16;  Gaps    5;

Qy        131 VLDYLYSGRVGDLPKAACLCVDEDCAHVGCHPAVAFMAQVLFAASTFQVAELTNLFQRRL 190
              || |:|| ||   ||    | ||:| || | ||| || :||: |  |:: ||  |:|| |
Db          7 VLAYVYSSRVRPPPKGVSECADENCCHVACRPAVDFMLEVLYLAFIFKIPELITLYQRHL 66

Qy        191 LDVLDKVEVDNLLLILSVANLCNKSCMKLLERCLDMVVRSNLDMITLEKSLPPDVIKQII 250
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Db         67 LDVVDKVVIEDTLVILKLANICGKACMKLLDRCKEIIVKSNVDMVSLEKSLPEELVKEII 126

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              | |  |||  |: |    |||  :|:||||||:|||::|| |  |||||| |||:|| :|
Db        127 DRRKELGLEVPKVK----KHVSNVHKALDSDDIELVKLLLKEDHTNLDDACALHFAVAYC 182

Qy        311 DSKITTELLDLALADVNHRNPRGYTVLHIAARRREPKIIVSLLTKGARPADVTFDGRKAV 370
              : |  |:|| | ||||||||||||||:|| |:||::|:||| |||  :: | :|| |:
Db        183 NVKTATDLLKLDLADVNHRNPRGYTVLHVAAMRKEPQLILSLLEKGASASEATLEGRTAL 242

Qy        371 QISKRLTKQGDYFGVTEEGKPSPKDRLCIEILEQAERRDPQLGEASVSLAMAGESLRGRL 430
               |:|: |   :   : |: | | | |||:|||| ::|:    :   | |:| : |:  |
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Qy        431 LYLENRVALARIMFPMEARVAMDIAQVDGTLEFNLGSGANPPPER----QRTTVDLNESP 486
              | |||||||: :|| ||: ||:||:: || || : |      |:|    :||:  :  :|
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Qy        487 FIMKEEHLARMTALSKTVELGKRFFPRCSNVLDKIMD-DETDPVSLGRDTSAEKR----K 541
              | : ||| :|: |||||||||||||||| |||:||: ::   :: | | :||||    :
Db        360 FRILEEHQSRLKALSKTVELGKRFFPRCSAVLDQIMNCEDLTQLACGEDDTAEKRLQKKQ 419

Qy        542 RFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTS 574
              |: ::|: |:||| ||  |     |: |:|||
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Search completed: September 14, 2004, 00:50:13
Job time : 36 secs
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